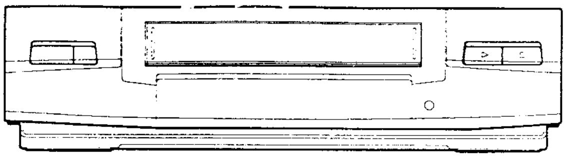
1994

MITSUBISHI

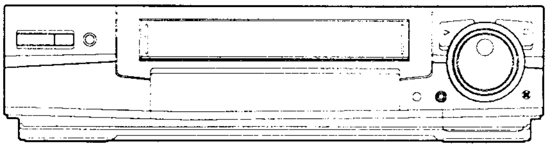
Service Manual

VIDEO CASSETTE RECORDER

VHS
PAL



HS-M30



HS-M40

MODEL

HS-M30(EE) HS-M40(EE)
HS-M30(Y) HS-M40V(B)
HS-M30V(E) HS-M40V(E)
HS-M30V(G) HS-M40V(G)
HS-M30V(Y) HS-M40V(IR)
HS-M40V(Y)

Only cassettes marked VHS can be used with this video cassette recorder.

SPECIFICATION

Tape Format	: VHS 1/2" high-density video cassette tape
Power Source	: AC 230V ; 50Hz [E,Y,G,B,IR] AC 220V ; 50Hz [EE]
Power Consumption	: Approx. 29W
Television System	: 625lines, 50fields System CCIR I PAL [B,IR] System CCIR B&G PAL [E,Y,G] System CCIR B/G & D/K PAL [EE]
Video Recording System	: Azimuth helical scanning system
Luminance	: Frequency modulation recording
Colour Signal	: Low frequency conversion subcarrier phase shift recording
Linear Audio Track	: 1 track
Tape Speed	: 23.39mm/sec(PAL SP mode) 11.70mm/sec(PAL LP mode)[M40] 33.35mm/sec(NTSC SP mode) [M40V(E)/M40V(G)/M40V(IR)/M40V(Y)] 11.12mm/sec(NTSC EP mode) [M40V(E)/M40V(G)/M40V(IR)/M40V(Y)]
Record/Playback Time	: 240min. with E-240 cassette (PAL SP mode) 480min. with E-240 cassette (PAL LP mode)[M40] 160min. with T-160 cassette (NTSC SP mode: playback only) [M40V(E)/M40V(G)/M40V(IR)/M40V(Y)] 480min. with T-160 cassette (NTSC EP mode: playback only) [M40V(E)/M40V(G)/M40V(IR)/M40V(Y)]
Heads:Video	: 3 rotary heads [M30] 4 rotary heads [M40]
Audio/Control	: 1 stationary head
Erase	: 1 full track head
Video Input	: 0.75 to 1.5Vp-p, 75Ω unbalanced EURO AV socket
Audio Input : Line	: −8dBs, 50kΩ unbalanced EURO AV socket −8dBs, 15kΩ unbalanced EURO AV socket [M40V(Y)/M40V(G)]
Video Output	: 1.0Vp-p, 75Ω unbalanced EURO AV socket
Audio Output	: −6dBs, 1kΩ unbalanced EURO AV socket
TV Tuner VHF	: 47~89MHz, 104~470MHz [E,Y,EE,G] 44~89MHz, 104~300MHz [IR]
UHF	: 470~870MHz
Operating Temperature	: 5°C to 40°C
RF Channel Output	: Set to Channel 38 [EE/IR] /Channel 36 [G,B,E,Y], (Channel 32~40 selectable)
Weight	: Approx. 5.0kg
Dimensions	: 380(W)×94(H)×326(D)mm [M30] 380(W)×94(H)×335(D)mm [M40]
Timer	: 8 programmes for any channels in one month/every day/every week day 24 hour digital synchronized with oscillator frequency.
Channel Selection	: 100 position Up/Down + EXT
Deck	: J Deck

- ●Weight and dimensions shown are approximate.
- ●Design and specifications are subject to change without notice.

MITSUBISHI ELECTRIC

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DISASSEMBLY

Note: Any screw can be used between 669D448030 securing the boss of the molded parts(silver) and 669D220030 (preferred part) for replacement because they are compatible with each other in service.

1. Removal of Top Cover

① Remove the two Top Cover fastening screws (ⓐ and ⓑ) shown in Fig. 1 and remove the Top Cover in the direction shown by the arrows.

2. Removal of Front Panel

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Unfasten seven catches (ⓒ~ⓘ), two on the top, two on the side, and three on the bottom, and remove the Front Panel in the direction shown by the arrows.

Note: Remove the Jog Dial and the Shuttle Ring before removing the Front Panel.

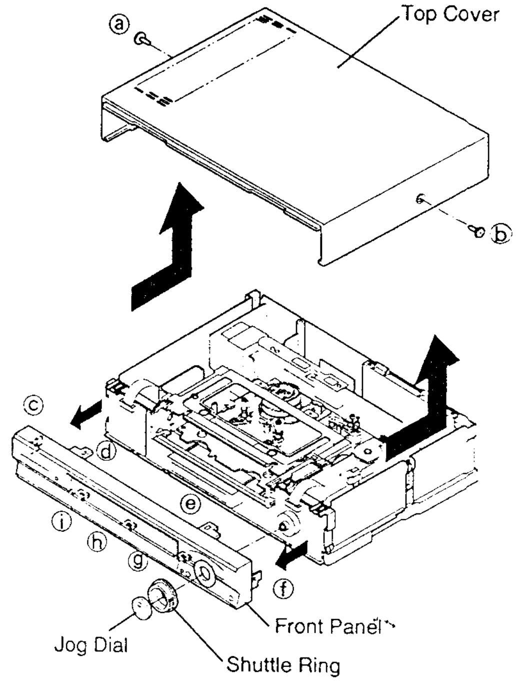


Fig. 1

3. Removal of Bottom Cover

① Remove five fastening screws (ⓐ~ⓔ) shown in Fig. 2.

② Push the two inside hooks (ⓕ and ⓖ), holding the Bottom Cover and slide the Bottom Cover toward the rear to remove it.

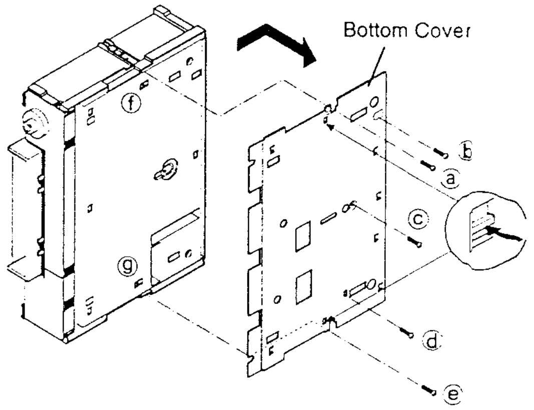


Fig. 2

4. Removal of Assy Deck

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Remove the three fastening screws (ⓐ,ⓑ and ⓒ) on the bottom of the set shown in Fig. 3.

③ Remove the five screws (ⓓ~ⓗ) holding the Assy Deck, shown in Fig.4, and disconnect the connectors ML, MM and ME.

④ Slowly raise slowly the Assy Deck upward to remove it.

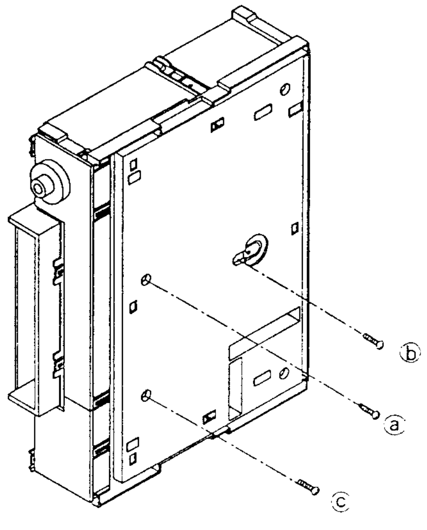


Fig. 3

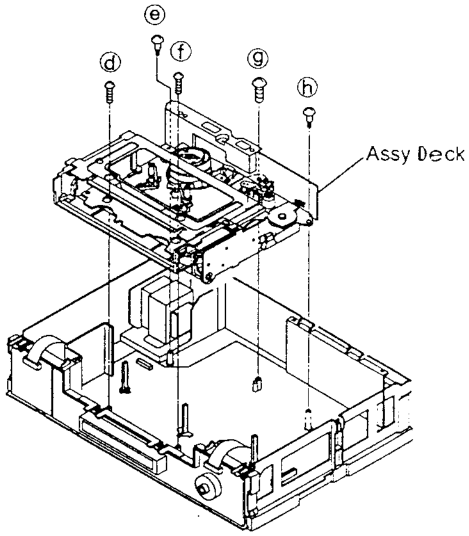


Fig. 4

5. Removal of Barrier

① Pull the part ⓐ of the barrier and remove it, as shown in Fig. 5.

⁎ Caution in installation.

Insert a convex part of the barrier into a slit that is side of Assy Deck. And put the other of the barrier in at the inside of the partition.

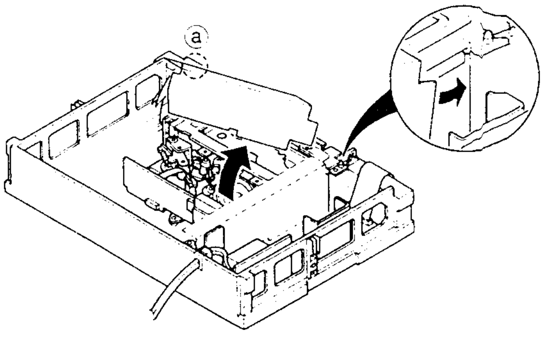


Fig. 5

HOW TO EXECUTE CIRCUIT BOARD SERVICE

CAUTION: BEFORE ATTEMPTING TO REMOVE OR REPAIR ANY PCB, UNPLUG THE POWER CORD FROM THE A.C. SOURCE.

LOCATION OF PRINT CIRCUIT BOARDS

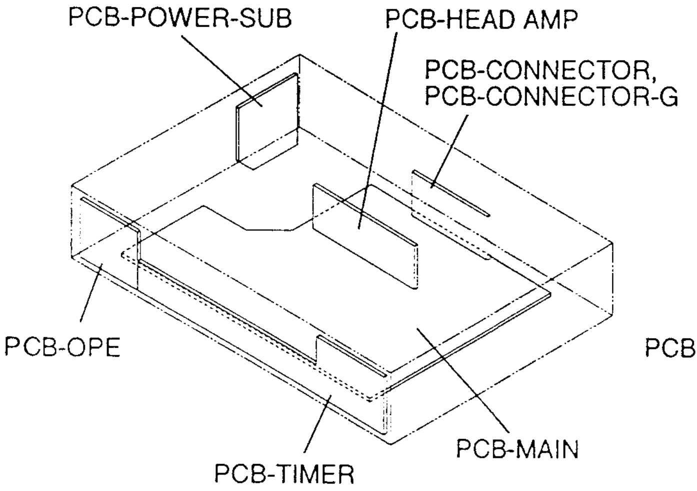

PCB-POWER-SUB
PCB-HEAD AMP
PCB-CONNECTOR,
PCB-CONNECTOR-G
PCB-OPE
PCB-MAIN
PCB-TIMER

Fig. 6A
[HS-M30(Y)/M30V(Y)/M30V(E)/M30V(G)]

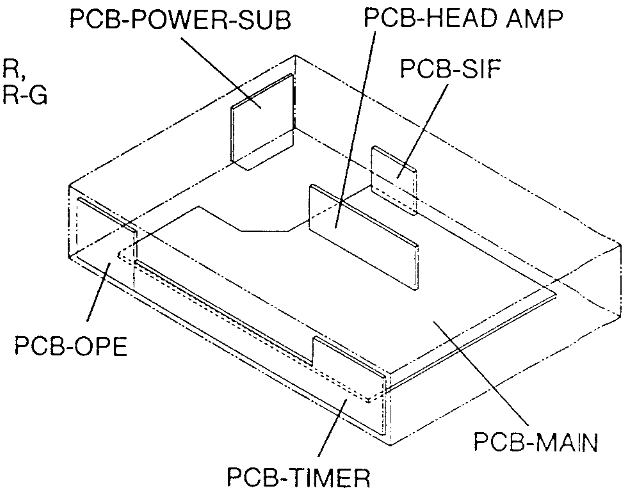

PCB-POWER-SUB
PCB-HEAD AMP
PCB-SIF
PCB-OPE
PCB-MAIN
PCB-TIMER

Fig. 6B
[HS-M30(EE)/M40(EE)]

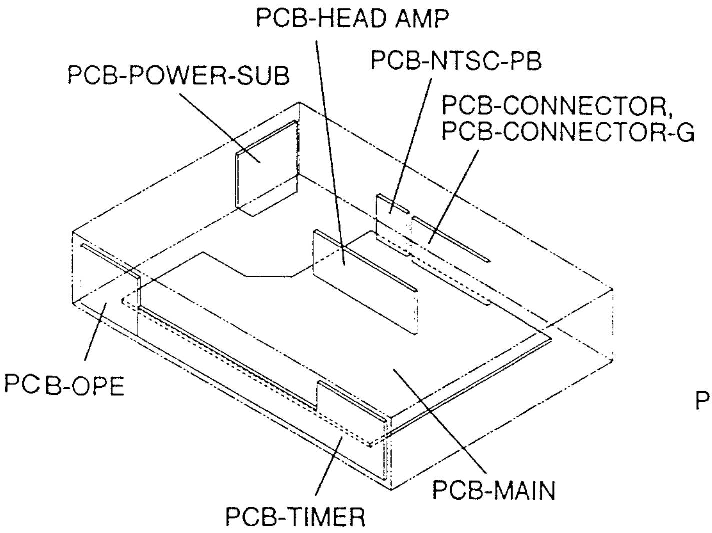

PCB-HEAD AMP
PCB-POWER-SUB
PCB-NTSC-PB
PCB-CONNECTOR,
PCB-CONNECTOR-G
PCB-OPE
PCB-TIMER
PCB-MAIN

Fig. 6C
[HS-M40V(Y)/M40V(E)/M40V(G)/M40V(IR)]

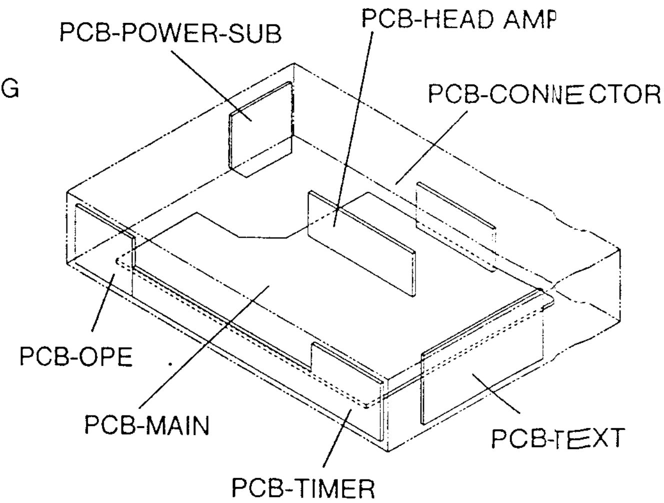

PCB-POWER-SUB
PCB-HEAD AMP
PCB-CONNECTOR
PCB-OPE
PCB-MAIN
PCB-TEXT
PCB-TIMER

Fig. 6D
[HS-M40V(B)]

Note:

- Take caution when removing flat cables to prevent any contact problem.
- Connect and disconnect the flat cables at right angles with the connector and make sure that it is completely secured.
- After servicing the PCB, restore the flat cable and leads to their former state.

1. PCB-MAIN

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY. Servicing on the components side is partially possible.

② Remove the Front Panel referring to Para. 2 of the DISASSEMBLY, and remove eight fastening screws referred to ②, ③ in Para. 4 of the DISASSEMBLY. (Do not disconnect the connector ML.)

③ Raise the front side of the Assy Deck upward as shown in Fig. 7 and support it with a screw driver, etc. Servicing on the components side is now possible.

④ If necessary, remove the Assy Deck refer to Para. 4 of the DISASSEMBLY. Remove one fastening screw (ⓐ) on the bottom and two fastening screws (ⓑ and ⓒ) on the Antenna Terminal Board shown in Fig. 8 and raise the PCB-MAIN upward to remove it.

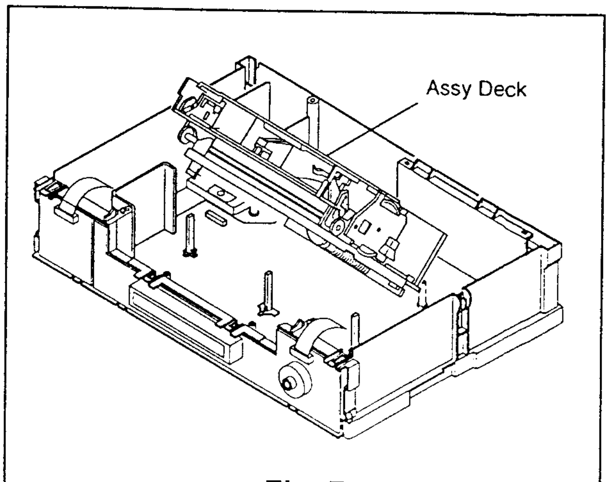


Fig. 7

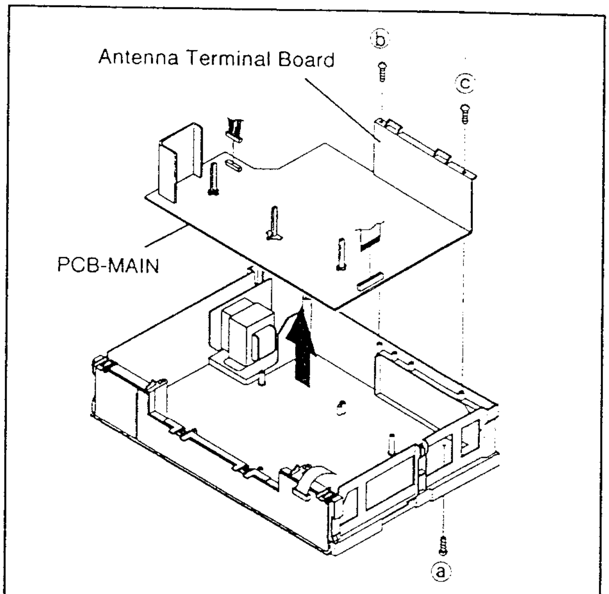


Fig. 8

2. PCB-TIMER/OPE

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Remove the Front Panel, refer to Para. 2 of the DISASSEMBLY.

③ Remove one fastening screw (ⓐ) and six catches (ⓑ~ⓖ) shown in Fig. 9 to remove the PCB-TIMER/OPE.

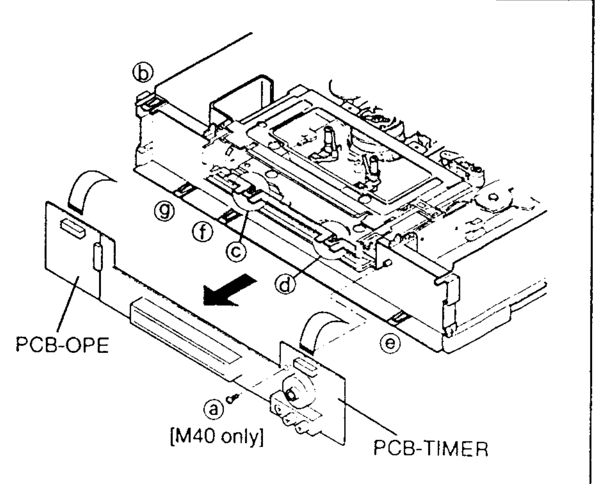


Fig. 9

3. PCB-HEAD AMP

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY. Servicing on the copper side is possible.

② If necessary, remove the Assy Deck, refer to Para. 4 of the DISASSEMBLY. Raise the Shield-PLATE - HAK upward to remove it. Disconnect three terminals (ⓐ,ⓑ and ⓒ), remove three fastening screws (ⓓ,ⓔ and ⓕ) shown in Fig. 10 and disconnect the connectors of Head FE, A/C Head, and Motor CP to remove the PCB-HEAD AMP.

Note: (for HS-M30V(G),HS-M40V(G))

Remove three screws (ⓖ,ⓗ and ⓘ) shown in Fig.10 and raise the shield-drum upward to remove it.

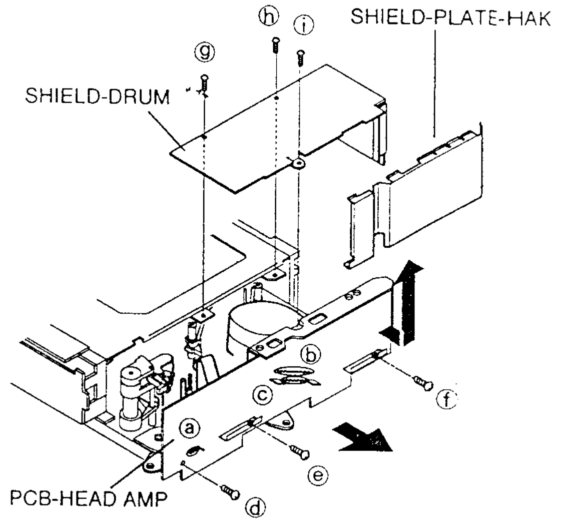


Fig.10

4. PCB-POWER-SUB

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Remove one fastening screw (ⓐ) on the bottom shown in Fig. 11 and two screws (ⓑ and ⓒ:669D221040) holding the transformer, and raise the PCB-POWER-SUB to remove it.

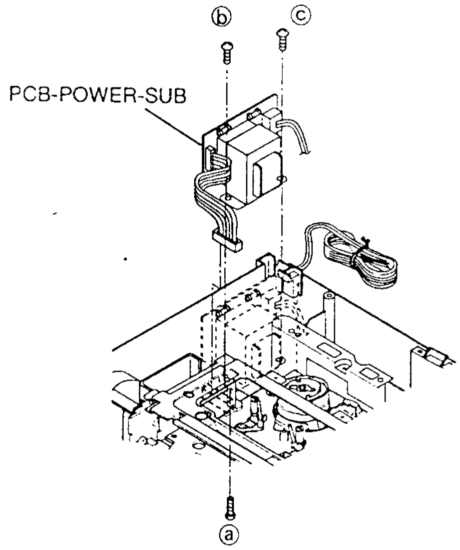


Fig.11

5. PCB-CONNECTOR, PCB-CONNECTOR-G

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.
(Servicing for the solder side of PCB-CONNECTOR, PCB-CONNECTOR-G is available.)

② If it is necessary to remove the PCB-CONNECTOR, PCB-CONNECTOR-G, comply with the following steps.
  (1) Remove the PCB-MAIN referring to the preceding paragraph.
  (2) Remove four screws (ⓐ,ⓑ,ⓒ and ⓓ), unfasten five catches (ⓔ~ⓘ) on the Antenna Terminal Board as shown in Fig.12, and remove the Antenna Terminal Board.
  (3) Raise the PCB-CONNECTOR upward to remove it.

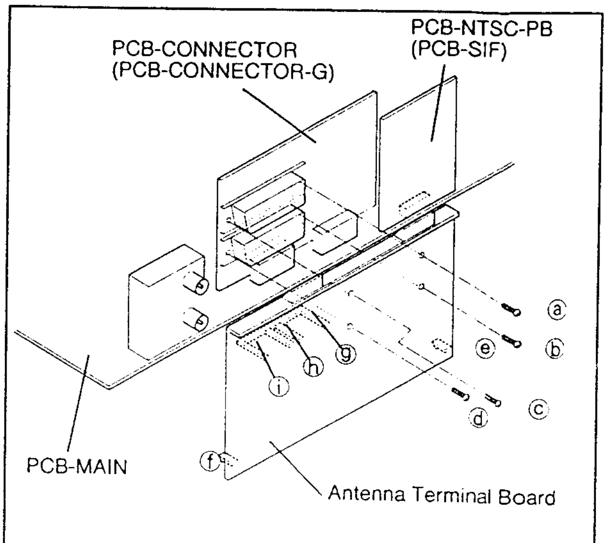


Fig. 12

6. PCB-NTSC-PB

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Raise the PCB-NTSC-PB upward to remove it.

7. PCB-SIF

① Remove the Top Cover referring to Para. 1 of the DISASSEMBLY.

② Disconnect the connector (MC) and raise the PCB-SIF upward to remove it.

8. PCB-TEXT

① If it is necessary to remove the PCB-TEXT, comply with the following steps.
  (1) Remove a screw (ⓐ) and unfasten two snaps (ⓑ and ⓒ) as shown in Fig. 13.
  (2) Disconnect the connector (EP) and raise the PCB-TEXT upward to remove it.

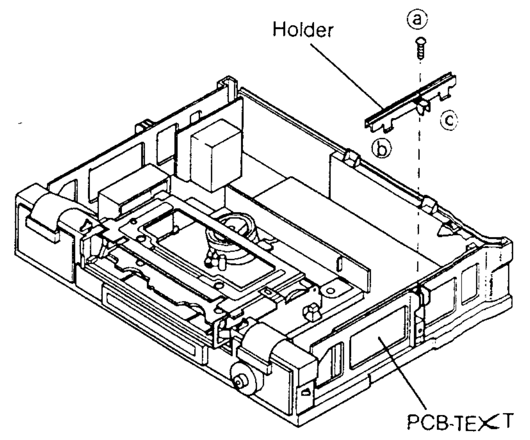
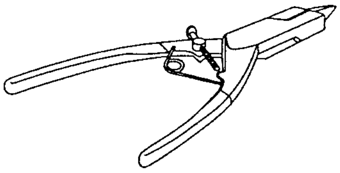
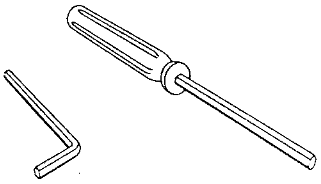
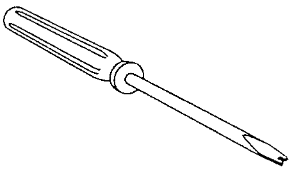
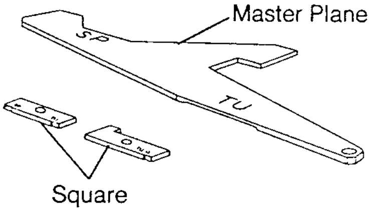
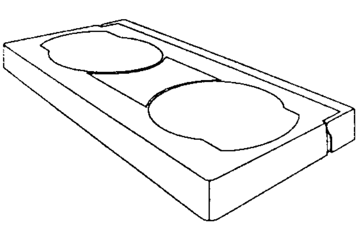
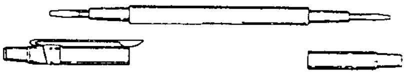
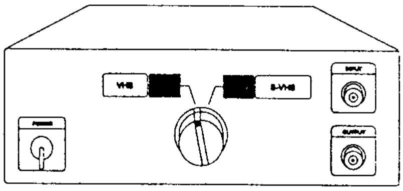
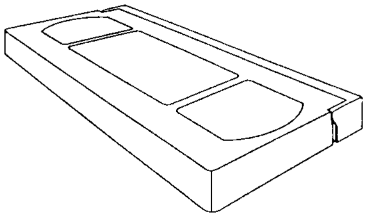


Fig. 13

MECHANICAL ADJUSTMENT TOOLS

	PURPOSE	METHOD
Grip ring fixer (859C347050) 	A tool for preventing the grip ring from opening excessively.	Opening the grip ring with the tips of this tool, install the grip ring on to the shaft.
Hex Keys(1.5mm)  (859C259020) (859C259050)	The hex keys are used for tightening or removing hexagonal socket head screws which fasten the guide rollers.	Insert the given size(1.5mm) hexagonal socket and turn.
Adjustment Driver (859C259080) 	For adjustment of guide rollers.	Carefully insert and adjust guide rollers.
Height adjusting Jig •**Master Plane** (859C342020) •**Square** (859C341070) 	The master plane and the square are used for measuring height and perpendicularity of the reel disk and Takeup guide arm.	The gauge is applied to the part being measured.
Back Tension Gauge (859C345080) 	The back tension gauge is used for measuring the tension of the tape on the supply side.	Load this gauge in the cassette housing and run in the play mode. Read the gauge indicator.
Cotton gloves	For changing, cleaning and handling of drum, heads and guides.	Use when handling all parts in the tape path.
Grease PG641 (859D055030) **G** (859D055050)	Lubrication of various parts.	To be applied as specified.

ELECTRICAL ADJUSTMENT TOOLS

	PURPOSE	METHOD
Adjustment Driver (859C338000) 767-M 	The adjustment driver is intended to adjust variable resistors, trimmers, transformers etc.in the circuitry.	Select a tip suitable for the particular head of the component concerned and adjust.
Carrier Checker (859C346050)  	Used for the adjustment or inspection of the carrier set deviation.	Use in conjunction with the oscilloscope. For detail refer to the service manual.
Alignment Tape **(PS-2 :859C339010)** **(NS-1 :859C339000)** **(PM6KH3 :859C339030)** **(PM3KE6(CH1) 25 :859C568050)** **(PMX :859C568070)** 	Standard signals(VHS Standard) are recorded on the alignment tape and reproduced when required in the adjustment of Y/C circuit, audio circuit and interchangeability alignment.	Install and run in the play mode, the same as for an ordinary tape.
Record Current Adjustment Jig (859C347080)	For Y/C Recording Level.	For Y/C Recording Level adjustment.

HOW TO INITIALIZE E²PROM

E²PROM is initialized before shipping, so E²PROM must be initialized when replaced.

Initialize E²PROM following the step below.

1. Set the VCR to "Set the clock" mode.
2. Push COUNTOR RESET button on the remote hand unit for 8 seconds.

PROVIDING DUMMY SIGNAL FOR SERVICE POSITIONS [B] AND [C]

Refer to page 10 for Service Position Information.

■ Function check for PB, REC, FF and REW Mode

- Cover the Start and End Sensors with an Infra-red opaque material e.g. black vinyl tape etc..
- The reel sensor must provide input "rotating" signals to the microprocessor. To provide a dummy reel rotating signal, connect TP2H(Drum FF) to TP5J8 on PCB-MAIN.

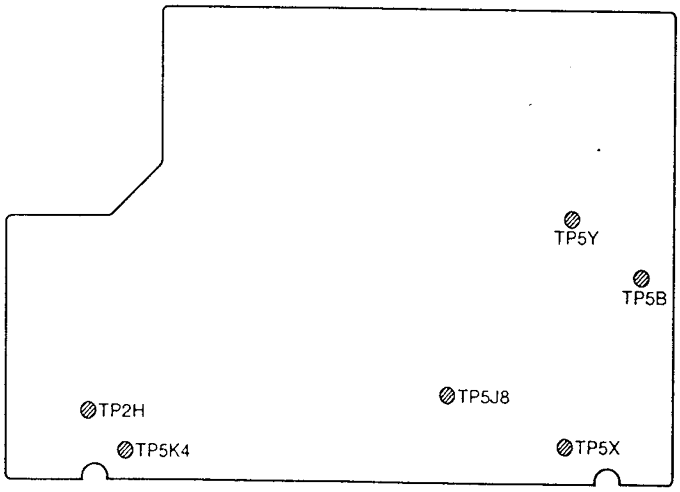
NOTE:

1) Because the Start and End sensors are disabled there will be a risk of END of TAPE damage in REW and FF Modes.
2) When TAPE EJECT is necessary, disconnect the mains supply and reinstall the DECK ASSY to the Service Position [A], restore power then EJECT the tape.

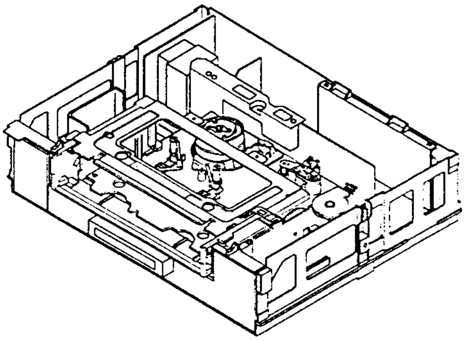
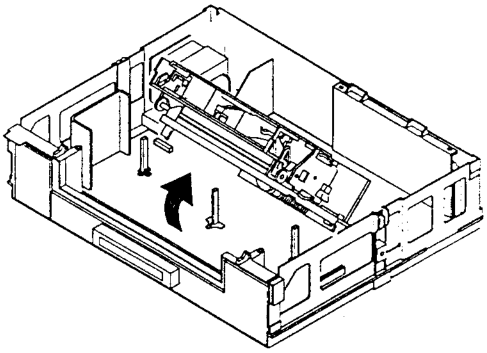
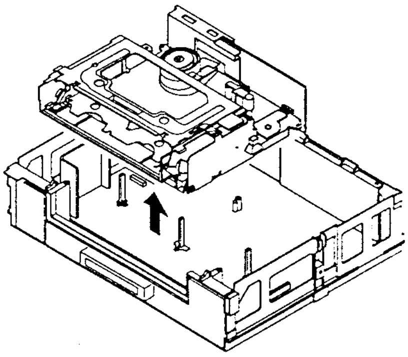
■ Record Protection Method

- To protect TEST TAPE(s) from accidental Record (erasure) during testing, connect TP5B (STBY 5V) to TP5K4 on PCB-MAIN .

PCB-MAIN(Component side)



When replacing parts or performing service adjustments, place the unit in the service positions shown below. Refer to page 9 for additional information about Service Positions.

Service Position	Service Item
(A) 	• Remove the top cover and the front panel. (1) Worn parts on the deck(upper drum, pinch roller assembly, A/C head, and FE head) can be replaced. (2) Checks at test points may be made to isolate a problem to a specific circuit.
(B) 	• Remove the screw holding the deck, raise the front side of the deck upward, and hold it with a screw driver etc. (1) Worn parts on the deck(reel belt, idler assembly, and capstan motor) can be replaced. (2) The performance of the deck can be checked. • The REC safety switch does not operate in position(B). • Set the deck to service position (A) and load the cassette tape. Then turn the power off and set the deck to service position (B). Cover the start and end sensors and short-circuit test points TP2H to TP5J8. Turn the power on and play the tape. (Do not use the start or end portion of the tape.) • If it is necessary to eject the tape, turn the power off and set the deck to the service position (A). Turn the power on again and eject the tape.
(C) 	• Remove the screw holding the deck to disconnect the deck from the connector. (1) Parts on the deck(drum assembly, PCB-HEAD-AMP, loading belt etc.) can be replaced. (2) The EE picture can be displayed by short-circuiting TP5X to TP5Y. (Short-circuit before turning the power on.) (Playback and recording operation can not be checked.)

Electrical Adjustments

Perform only the alignments required. If proper equipment is not available,do not attempt an alignment.

Measuring equipment and Jigs

- Oscilloscope (Unless otherwise specified in particular, use it at 10:1 probes.)
- Signal generator
- Frequency counter
- Audio tester
- Direct current voltmeter
- Electrical tools

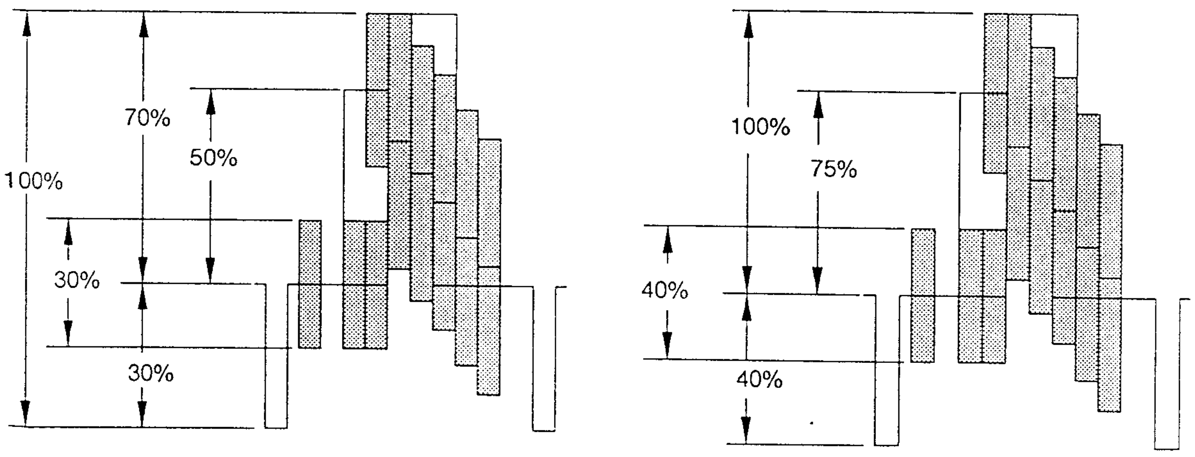
Test Signal

1).Monoscope signal

When you have no monoscope signal source for adjustment, connect the unit to a VCR and play an alignment tape(Monoscope).

2).Colour bar signal

In this manual, unless otherwise specified in particular, use colour bar signal in specifications below.



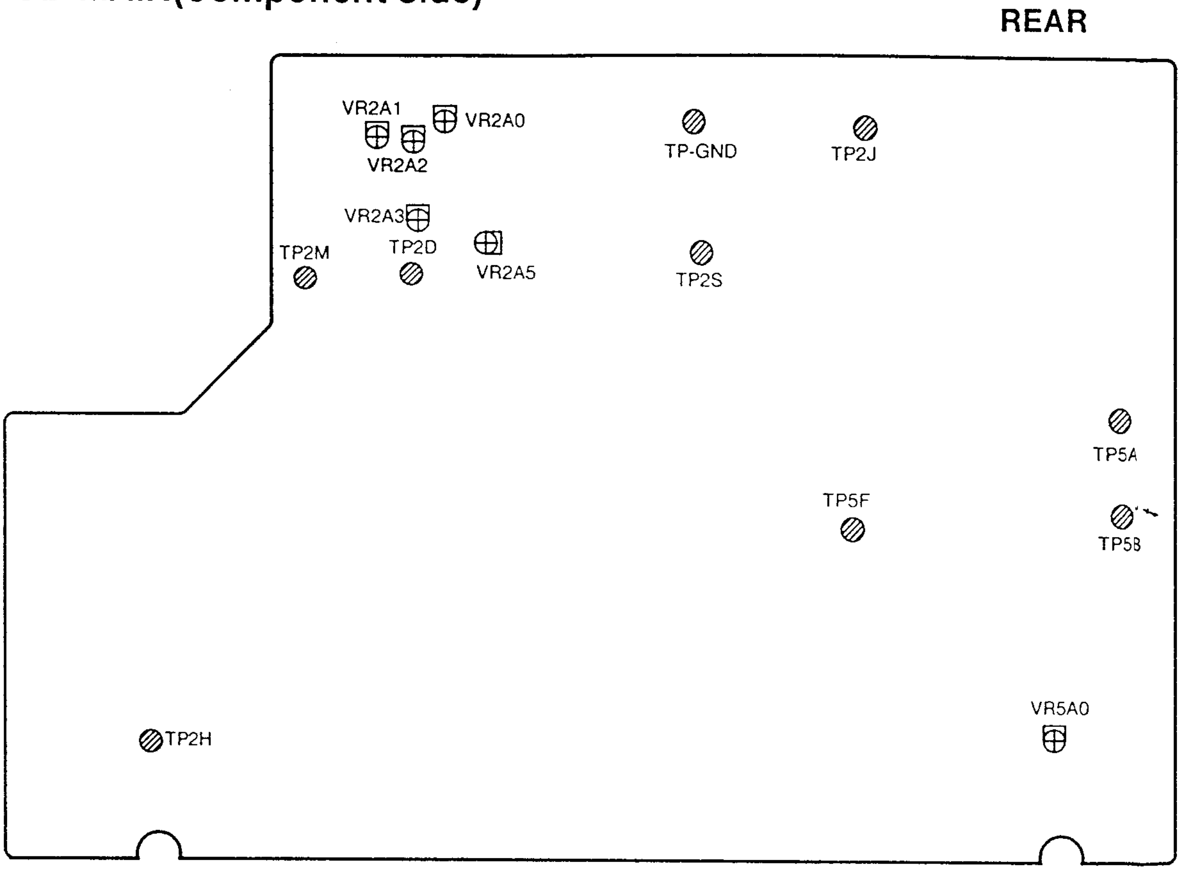
PAL

NTSC

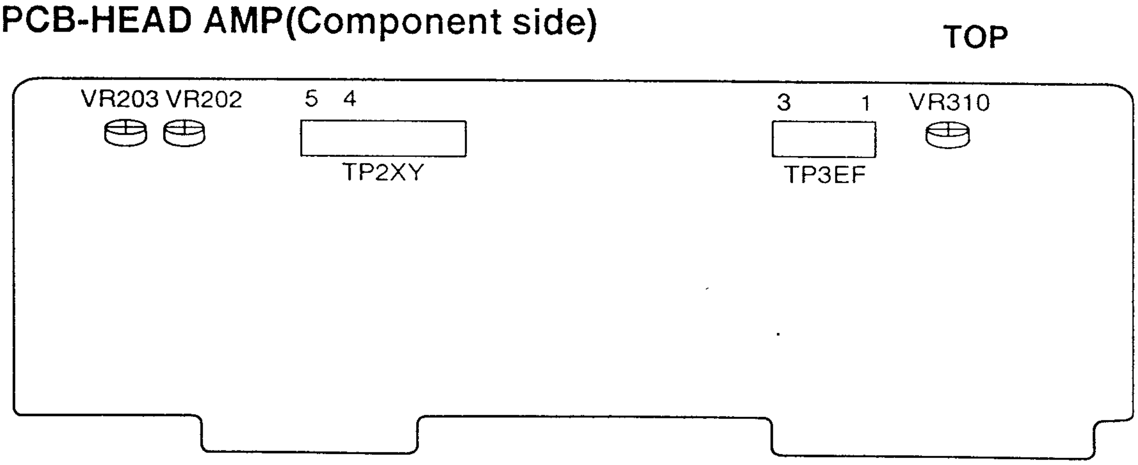
Split-Field colour bar(with 100% window)

LOCATIONS

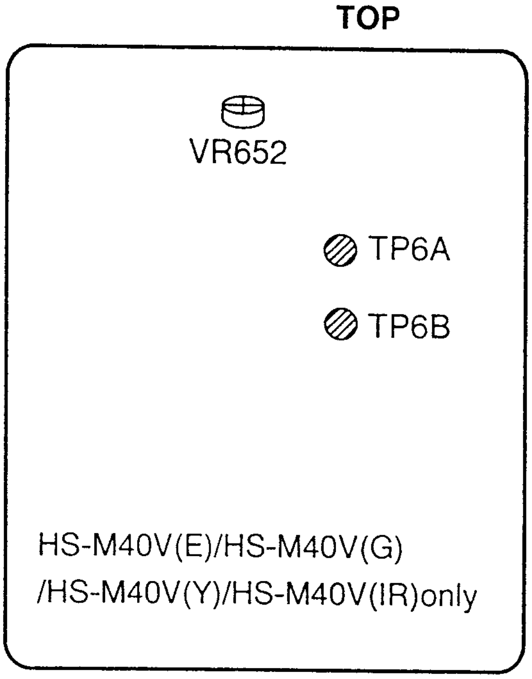
PCB-MAIN(Component side)


REAR
VR2A1
VR2A0
VR2A2
TP-GND
TP2J
VR2A3
TP2M
TP2D
VR2A5
TP2S
TP5A
TP5F
TP5B
VR5A0
TP2H

PCB-HEAD AMP(Component side)


TOP
VR203
VR202
5
4
TP2XY
3
1
VR310
TP3EF

PCB-NTSC (Component side)

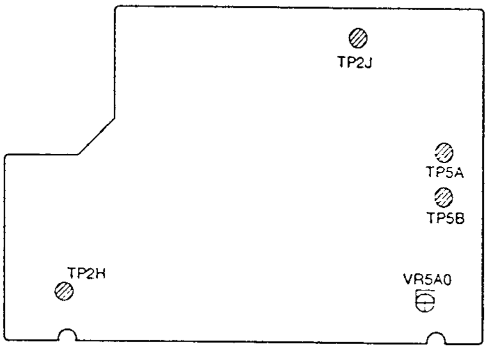

TOP
VR652
TP6A
TP6B
HS-M40V(E)/HS-M40V(G)
/HS-M40V(Y)/HS-M40V(IR)only

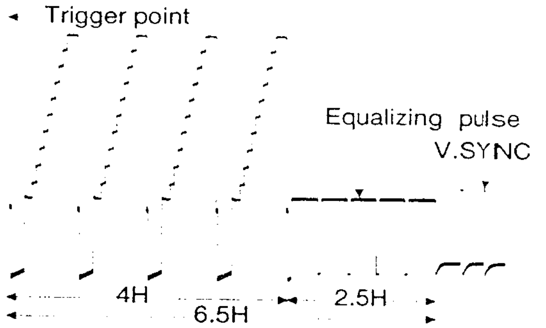
[Servo circuit] 1.Playback Switching Point	**Adjustment purpose**	Video switch over timing during playback.
	Symptom when incorrectly adjusted	Switching noise or jitter in the playback picture.

Measuring instrument and condition		VCR set up condition	
Oscilloscope		Input signal	—
Test point	TP2J	Using tape	Alignment tape (PS2, stair step)
EXT trigger	TP2H	VCR condition	Playback
Measurement range	DIV 20mV TIM 50 μ s	Using Jig	—

1. Play back an alignment tape(PS2, stair step).
2. Short-circuit TP5A and TP5B. Confirm that the "DTR" displayed in Fluorescent Display flashes fast.
3. Set the oscilloscope's slope to (–).
4. Observe the waveform at TP2J.
5. Adjust VR5A0 so that the trigger point is located at 6.5±1.0H before the vertical synchronizing signal.

PCB-MAIN (Component side)



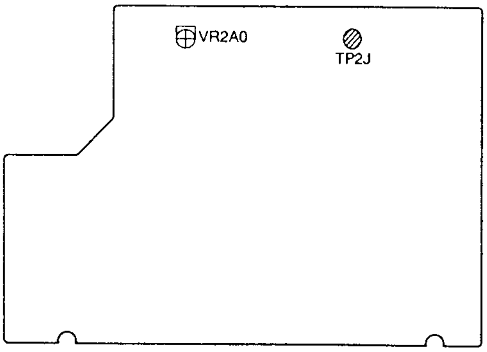


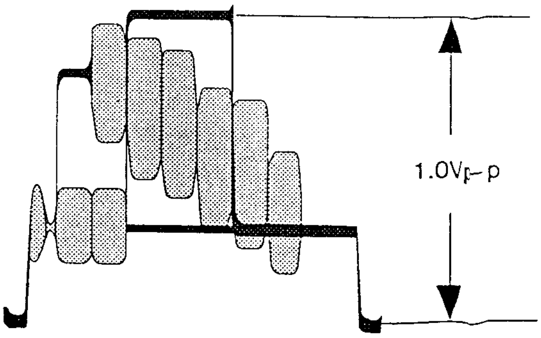
[Y/C signal circuit] 2.EE Output Level	**Adjustment purpose**	Output level of signal at STOP mode.
	Symptom when incorrectly adjusted	Too bright or too dark image: incorrect colour.

Measuring instrument and condition		VCR set up condition	
Oscilloscope		Input signal	RF signal (PAL colour bar)
Test point	TP2J	Using tape	—
EXT trigger	—	VCR condition	STOP
Measurement range	DIV 20mV TIM 10 μ s	Using Jig	—

1. Supply an RF signal(PAL colour bar).
2. Be certain that nothing is connected to the VIDEO OUT terminal.
3. Observe the waveform at TP2J.
4. Adjust VR2A0 so that the amplitude of the waveform is 1.0Vp-p.

PCB-MAIN (Component side)



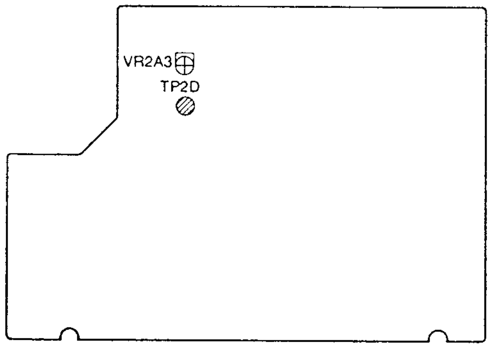


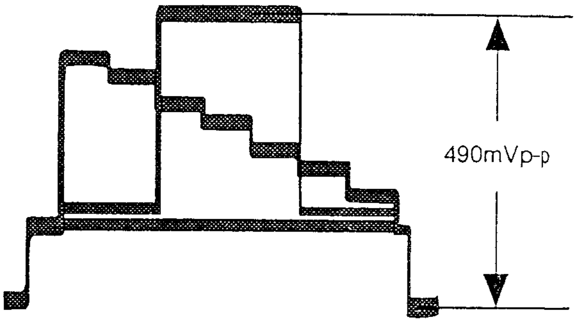
[Y/C signal circuit] 3.Clamp	**Adjustment purpose**	Set the level of video signal.
	Symptom when incorrectly adjusted	Blurred image, white streaking black streaking.

Measuring instrument and condition		VCR set up condition	
Oscilloscope		Input signal	RF signal (PAL colour bar)
Test point	TP2D	Using tape	—
EXT trigger	—	VCR condition	STOP
Measurement range	DIV 10mV TIM 10 μs	Using Jig	—

1. Supply an RF signal(PAL colour bar).
2. Observe the waveform at TP2D.
3. Adjust VR2A3 so that the amplitude of the waveform is 490mVp-p.

PCB-MAIN (Component side)



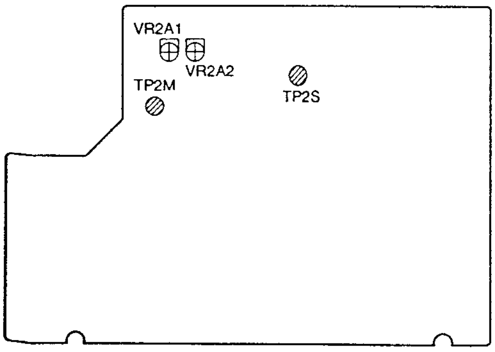


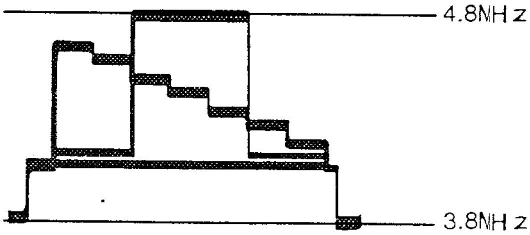
[Y/C signal circuit] 4.Carrier set, Deviation	**Adjustment purpose**	Set the FM carrier frequency and frequency deviation.
	Symptom when incorrectly adjusted	Too bright or too dark image: colour signal is to reproduced incorrectly. Horizontal noise or out of sync.

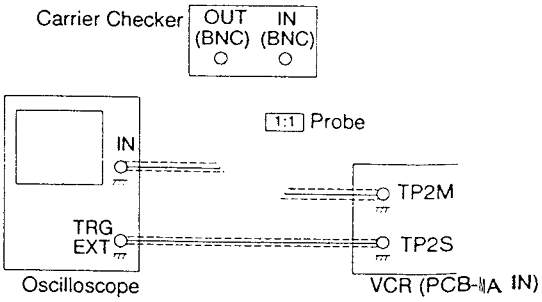
Measuring instrument and condition		VCR set up condition	
Oscilloscope(Probe 1:1)		Input signal	RF signal (PAL colour bar)
Test point	TP2M	Using tape	—
EXT trigger	TP2S	VCR condition	STOP
Measurement range	DIV 0.2V TIM 10 μs	Using Jig	Carrier checker

1. Supply an RF signal(PAL colour bar).
2. Observe the waveform at TP2M using the carrier checker.
3. Adjust VR2A2 and VR2A1 so that the response waveform 3.8MHz line and 4.8MHz just touch each of the white lines on the oscilloscope.

PCB-MAIN (Component side)



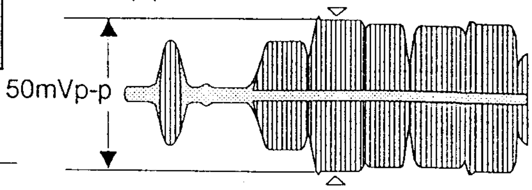




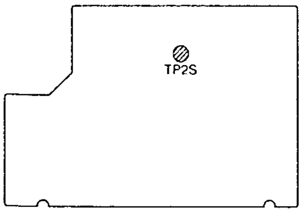
[Y/C signal circuit] 5.Y/C Recording Level (HS-M40V(B),M40V(EE) M40V(IR)only)	**Adjustment purpose**	Set the record level of the video and chroma signals.
	Symptom when incorrectly adjusted	Low luminance signal S/N ratio, beats, colour bounding or flicker.

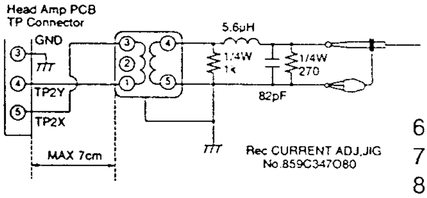
Measuring instrument and condition		VCR set up condition	
Oscilloscope(Probe 1:1)		Input signal	RF signal (PAL colour bar)
Test point	TP2XY pin ④,pin ⑤	Using tape	A blank tape
EXT trigger	TP2S	VCR condition	LP REC
Measurement range	DIV 10mV TIM 10 μs	Using Jig	REC CURRENT ADJ. JIG

1.Supply an RF signal(PAL colour bar).
2.Set a VCR to LP REC mode.
3.Observe the waveform at TP2XY pin ④ and pin ⑤ using the REC CURRENT ADJ. JIG.
4.Turn VR203 fully counter clockwise as seen from top side.
5.Adjust VR202 so that the amplitude of cyan is 50mVp-p.



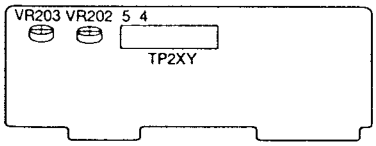
PCB-MAIN (Component side)

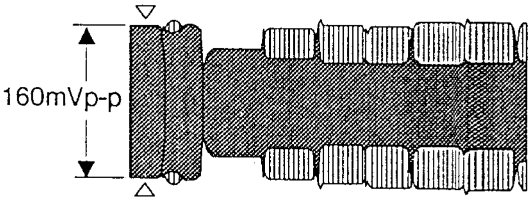



Head Amp PCB
TP Connector
GND
③
④
⑤
TP2Y
TP2X
MAX 7cm
5.6μH
1/4W
1k
1/4W
270
82pF
Rec CURRENT ADJ.JIG
No.859C347080

6.Set the oscilloscope's probe to 10:1.
7.Set an oscilloscope's volt range to 5mV/div.
8.Adjust VR203 so that the amplitude of horizontal sync is 160mVp-p.

PCB-HEAD AMP (Component side)

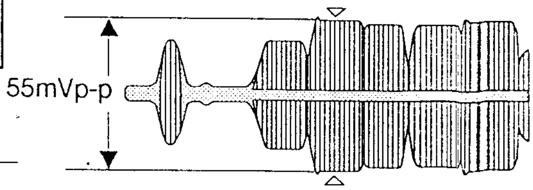

VR203
VR202
5
4
TP2XY



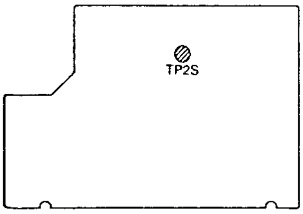
[Y/C signal circuit] 5.Y/C Recording Level (HS-M30V(E),M30V(EE),M30(G) M30V(Y),M30(Y)only)	**Adjustment purpose**	Set the record level of the video and chroma signals.
	Symptom when incorrectly adjusted	Low luminance signal S/N ratio, beats, colour bounding or flicker.

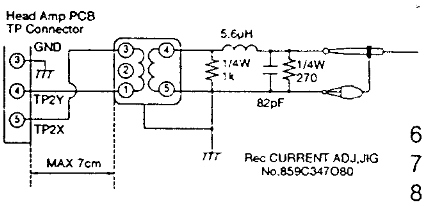
Measuring instrument and condition		VCR set up condition	
Oscilloscope(Probe 1:1)		Input signal	RF signal (PAL colour bar)
Test point	TP2XY pin ④,pin ⑤	Using tape	A blank tape
EXT trigger	TP2S	VCR condition	LP REC
Measurement range	DIV 10mV TIM 10 μs	Using Jig	REC CURRENT ADJ. JIG

1.Supply an RF signal(PAL colour bar).
2.Set a VCR to LP REC mode.
3.Observe the waveform at TP2XY pin ④ and pin ⑤ using the REC CURRENT ADJ. JIG.
4.Turn VR203 fully counter clockwise as seen from top side.
5.Adjust VR202 so that the amplitude of cyan is 50mVp-p.



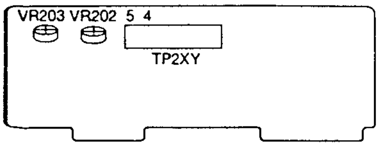
PCB-MAIN (Component side)

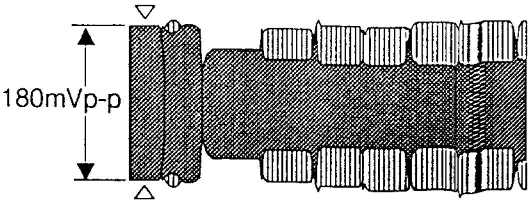



Head Amp PCB
TP Connector
GND
③
④
⑤
TP2Y
TP2X
MAX 7cm
5.6μH
1/4W
1k
1/4W
270
82pF
Rec CURRENT ADJ.JIG
No.859C347080

6.Set the oscilloscope's probe to 10:1.
7.Set an oscilloscope's volt range to 5mV/div.
8.Adjust VR203 so that the amplitude of horizontal sync is 180mVp-p.

PCB-HEAD AMP (Component side)


VR203
VR202
5
4
TP2XY

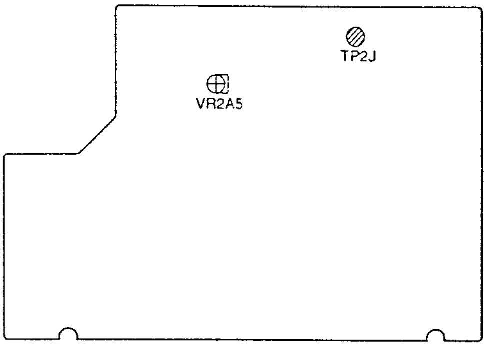


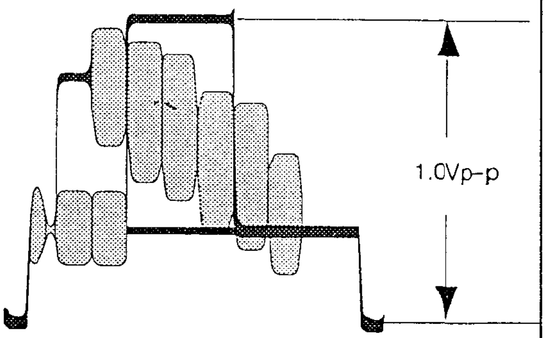
[Y/C signal circuit] 6.Playback Video Output Level	**Adjustment purpose**	Video output level during playback.
	Symptom when incorrectly adjusted	Colour signal is not correctly reproduced.

Measuring instrument and condition		VCR set up condition	
Oscilloscope		Input signal	—
Test point	TP2J	Using tape	Alignment tape (PS2, colour bar)
EXT trigger	—	VCR condition	Playback
Measurement range	DIV 20mV TIM 10 μs	Using Jig	—

1. Be certain that nothing is connected to be a VIDEO OUT terminal.
2. Play back an alignment tape(PS2, colour bar).
3. Observe the waveform at TP2J.
4. Adjust VR2A5 so that the amplitude of the waveform is 1.0Vp-p.

PCB-MAIN (Component side)



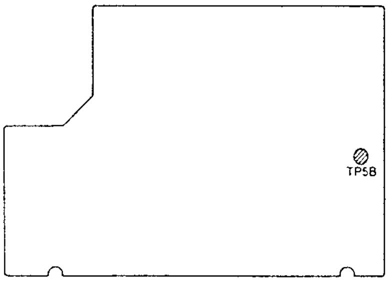


[Y/C signal circuit] 7.N-PAL VCO (HS-M40V(E),M40V(G) M40V(IR),M40V(Y)only)	**Adjustment purpose**	Frequency setting of gate pulse for sampling the burst signal in order to convert NTSC signal to a quasi-PAL signal.
	Symptom when incorrectly adjusted	No colour signal during NTSC tape playback.

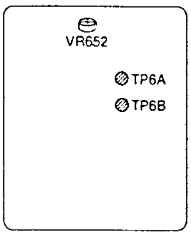
Measuring instrument and condition		VCR set up condition	
Frequency counter		Input signal	—
Test point	TP6B	Using tape	Alignment tape (NS1, colour bar)
EXT trigger	—	VCR condition	Playback
Measurement range	—	Using Jig	—

1. Short-circuit TP6A to TP5B(SW5V).
2. Play back an alignment tape (NS1,colourbar).
3. Observe the frequency at TP6B.
4. Adjust VR652 so that the frequency is 15.734 kHz ±50Hz.
5. Open TP6A and TP5B (SW5V).

PCB-MAIN (Component side)



PCB-NTSC (Component side)



[Audio circuit] 8.Audio Bias Level	**Adjustment purpose**	Audio bias level during recording.
	Symptom when incorrectly adjusted	Poor audio high frequency response or distortion.

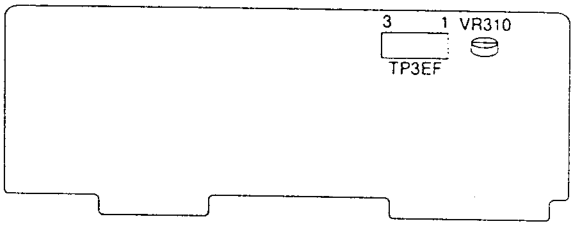
Measuring instrument and condition		VCR set up condition	
Audio tester		Input signal	—
Test point	TP3EF pin ①, pin ③	Using tape	A blank tape
EXT trigger	—	VCR condition	SP REC
Measurement range	—	Using Jig	High pass filter

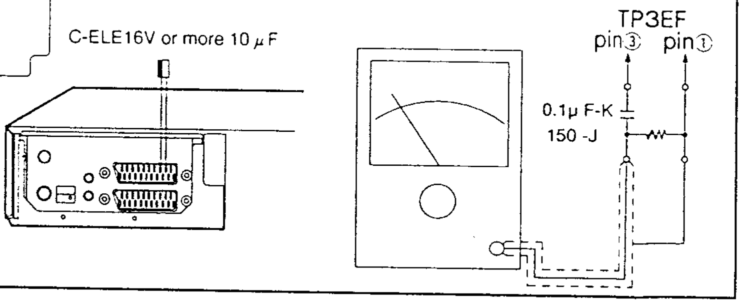
1. Supply no signal.
2. Short-circuit EURO AV socket pin ② (AUDIO IN) and pin ④ (GND) using an electrolytic capacitor (16V or more 10 μF).
3. Set the VCR to SP REC mode.
4. Observe the audio level at TP3EF pin ① and pin ③ with an Audio Tester using a high pass filter.
5. Confirm that the monitor TV etc. does not affect the indication of the audio tester and then adjust VR310 so that the level is 2.6mVr.m.s.

Note 1:
Be careful that the audio tester housing does not touch the VCR chassis.

Note 2:
Never set the VCR to Play mode with the audio tester connected.
(The audio amplifier will be over loaded.)

PCB-HEAD AMP (Component side)



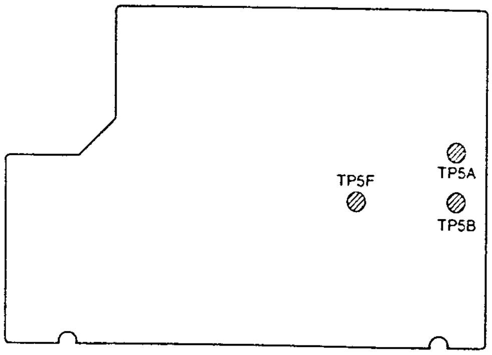


[Timer circuit] 9. Clock Frequency Correction	**Adjustment purpose**	Accuracy of clock.
	Symptom when incorrectly adjusted	Poor clock accuracy.

Measuring instrument and condition		VCR set up condition	
Frequency Counter		Input signal	—
Test point	TP5F	Using tape	—
EXT trigger	—	VCR condition	Power off
Measurement range	—	Using Jig	—

1. Short-circuit TP5A to TP5B.
2. Observe the frequency at TP5F.
3. Be certain that the frequency is between 262.1000 ~ 262.1882kHz.
4. Use the number buttons on the remote hand unit to enter the last three digits of the frequency counter reading (262.1ⓐⓑⓒkHz). Enter the digits in ⓐⓑⓒ sequence.
5. Push the REC button on a remote hand unit.
6. Open circuit TP5A and TP5B.

PCB-MAIN (Component side)



[MEMO]

MECHANICAL ADJUSTMENT AND REPLACEMENT

1.Cleaning of Deck

The following parts require cleaning whenever serviced to maintain satisfactory performance.

1-1 Video Head

A.Clean the video heads by the following method. Dust and other foreign objects on the video heads disturbs the normal playback picture:

Dampen a video head cleaning cloth with alcohol. Hold the cloth against the drum and turn the drum slowly counterclockwise to clean.

NOTE:

Do not directly touch the head attached to the upper drum. The head is very hard but brittle to impact,especially in the vertical direction.

Do not apply force in the vertical direction.

B.Allow residual alcohol to dry thoroughly before running tape. Otherwise, the liquid may stick to and damage the tape.

1-2 Tape Transport (Refer to Fig. 1-1.)

Clean the following parts of the tape transport.

1. Tension arm
2. Supply guide pole
3. FE head
4. Supply slant pole
5. Upper and lower drum
6. Takeup slant pole
7. A/C head
8. Takeup guide pole
9. Capstan shaft
10. Takeup guide arm

A.Clean the tape transport using gauze dampened with alcohol,except the supply guide roller and takeup guide roller. If Guide rollers and pinch roller are stained with dust,clean them with dry gauze or replace them with new parts.

B.Allow residual alcohol to dry thoroughly before running a tape. Otherwise the liquid may stick to and damage the tape.

1-3 Reel Disk Drive System

Clean the reel disk braking surfaces and the reel belt.

A.Clean the reel disk braking surfaces with gauze dampened with alcohol.

- After the alcohol dries completely, perform "Adjustment of Back Tension and Tension Position" (Item 3-1).

B. If theReel belt is stained with dust,clean it with dry gauze or exchange it for a new part.

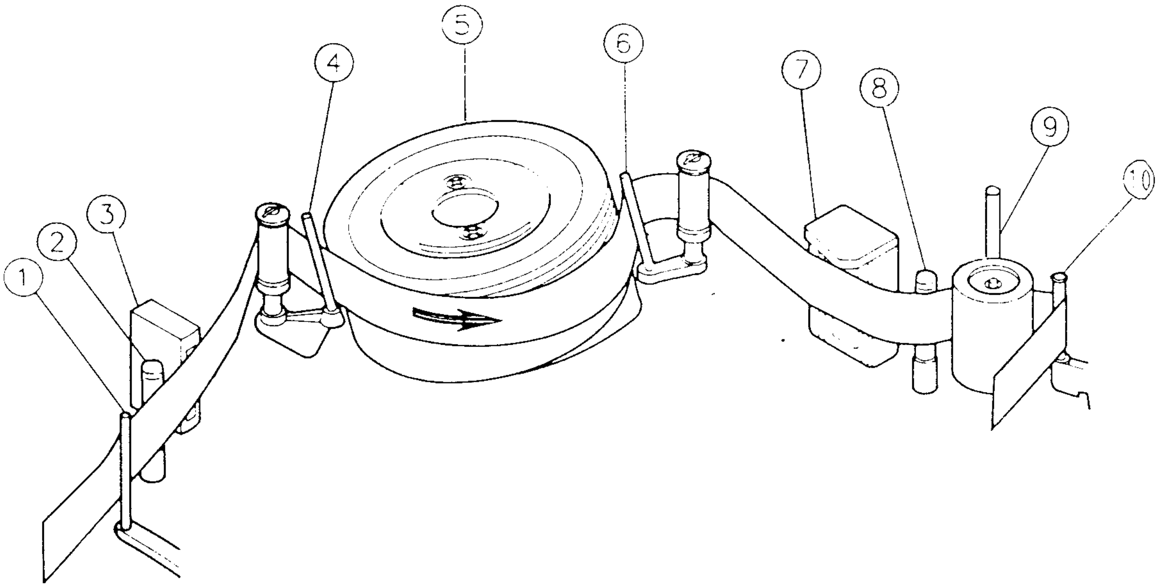


Fig. 1-1

2. Replacement of Major Parts

2-1 Cassette Housing

(Removal)

① Set the VCR to the eject mode.

② Remove the top cover and the front panel.

③ Unfasten the clamp holding the lead of the loading motor, which is attached to the side plate of the cassette housing. Unscrew the two cassette housing fastening screws(ⓐ and ⓑ). Slowly raise the cassette housing in the direction shown by the arrow.
(Refer to Fig. 2-1-1.)

(Installation)

① Make sure that the holes (matching mark M) on the body and cogwheel of the mode switch align with each other as shown in Fig. 2-1-2. At the same time confirm that the hole of the gear pinch aligns with the matching marks of the gear joint J and the ▽ mark on the mode switch cogwheel,refer to Fig. 2-19-5. This indicates the J deck is in the EJECT mode.

② If the deck is not completely set to the eject mode, turn part A of the pulley worm J by hand to set the eject mode. (Refer to Fig. 2-1-4)
Turn in the direction a …… for loading
Turn in the direction b …… for unloading

③ Slowly lower the cassette housing onto the main plate of the deck.

④ Make sure the record safety lever enters between the insert guide of the cassette housing and the shaft as shown in Fig. 2-1-3. Align the four points(ⓒ, ⓓ, ⓔ and ⓕ), located on the bottom of the housing with the matching holes in the deck. Secure the cassette housing on the deck with the two screws(ⓐ and ⓑ).
(Refer to Fig. 2-1-1.)

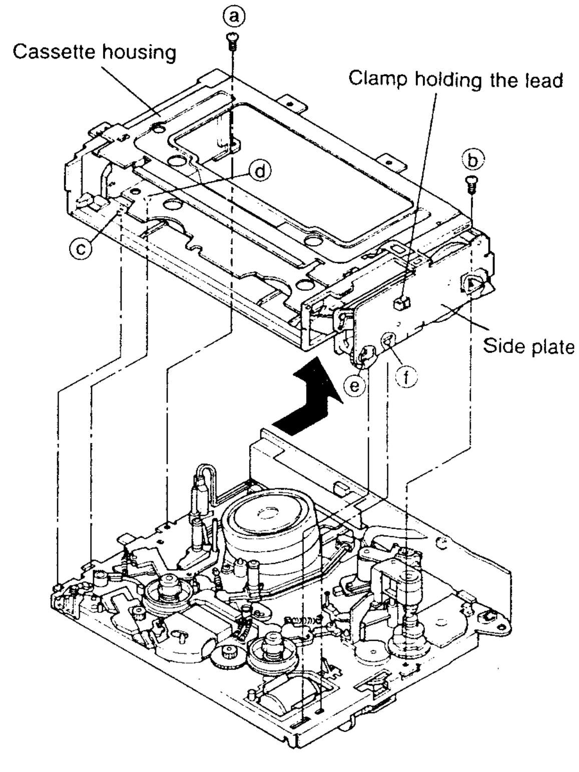

ⓐ
Cassette housing
Clamp holding the lead
ⓑ
ⓓ
ⓒ
Side plate
ⓔ
ⓕ

Fig. 2-1-1

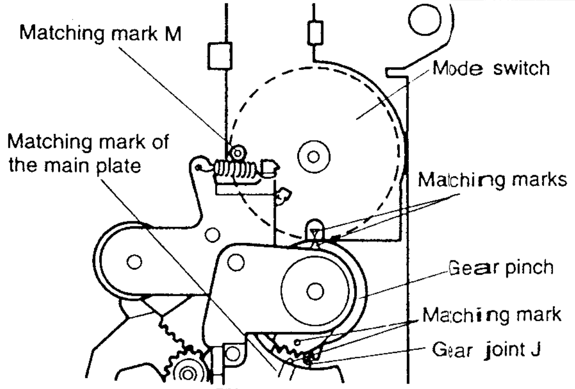

Matching mark M
Mode switch
Matching mark of the main plate
Matching marks
Gear pinch
Matching mark
Gear joint J

Fig. 2-1-2

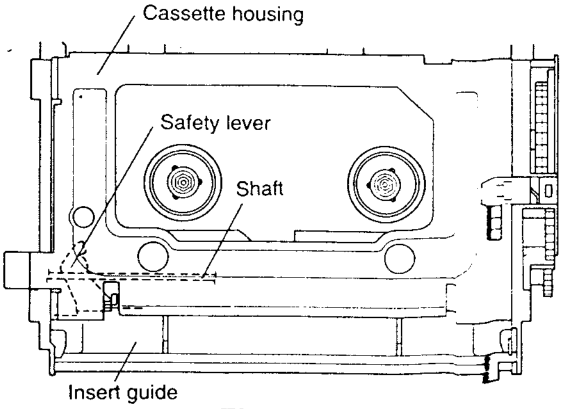

Cassette housing
Safety lever
Shaft
Insert guide

Fig. 2-1-3

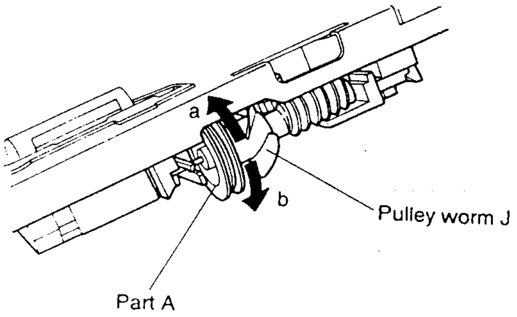


Fig. 2-1-4

2-2 Sense Gear, Drive Gear, Takeup Arm, and Arm Spring(TU)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Unfasten the four catches(ⓐ, ⓑ, ⓒ and ⓓ) as shown in Fig. 2-2-1 and remove the side plate.

③ Remove the sense gear.

④ Pull the lock levers on both the supply and takeup side, shown in Fig. 2-6-1, in the direction shown by the arrow to shift the bottom plate to the position shown in Fig. 2-6-2.

⑤ Remove the takeup arm.

⑥ Turn and pull the drive gear in the direction shown by the arrow to remove it from the sense gear as shown in Fig. 2-2-3.

⑦ Remove the arm spring(TU) from the takeup arm as shown in Fig. 2-2-4.

(Installation)

① Apply the grease(G)[859D055050] to the area of the new takeup arm shown in Fig. 2-2-2 and 2-2-4.

② Apply the grease(G)[859D055050] to the area shown in Fig. 2-2-5 of the new sense gear.

③ Place the clip spring onto the drive gear hooking one end under the catch as shown in Fig. 2-2-5. Install the sense gear unto the drive gear so that hole A aligns with hole B. Hold the sense gear while turning the drive gear clockwise, in so doing engage the other end of the clip spring with the catch of the sense gear. The projection A of the sense gear must enter the hole B of the drive gear.

④ Ensure the spring action is effective by holding the sense gear and turning the drive gear slightly clockwise, observing whether the drive gear returns when released.

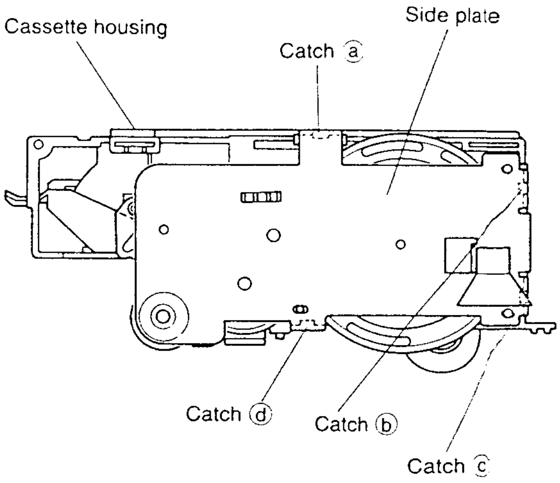


Fig. 2-2-1

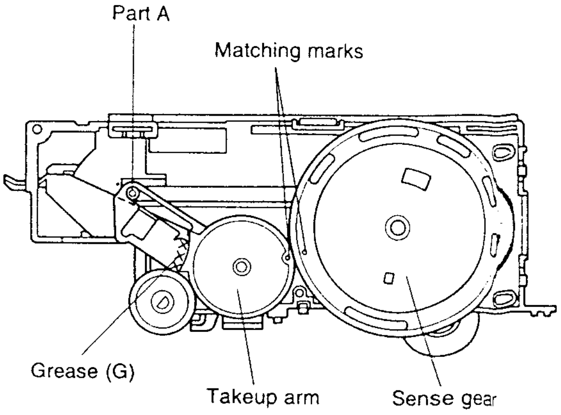


Fig. 2-2-2

⑤ Install the takeup arm so that the shaft attached to the bottom plate enters between the takeup arm and takeup spring after the bottom plate has been moved as shown in Fig. 2-6-2.

Note: Install the takeup arm so that the engaging point between the supply arm and the gear-S and that between the takeup arm and the gear-T are symmetrical as shown in Fig. 2-4-1.

⑥ Shift the bottom plate back to the eject position and install the sense gear so that the matching marks of the sense gear and the takeup arm align to each other as shown in Fig. 2-2-2.

⑦ Install the side plate.

⑧ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

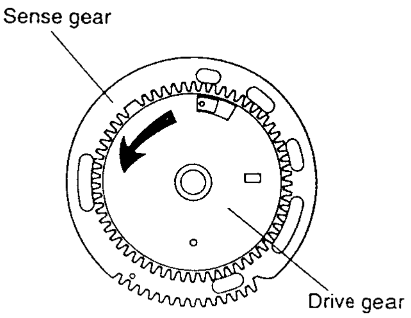

Sense gear
Drive gear

Fig. 2-2-3

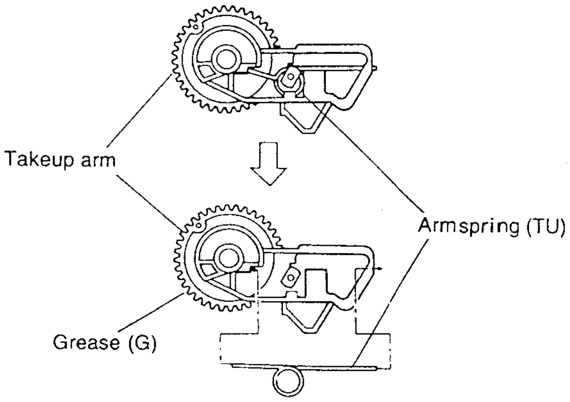

Takeup arm
Armspring (TU)
Grease (G)

Fig. 2-2-4

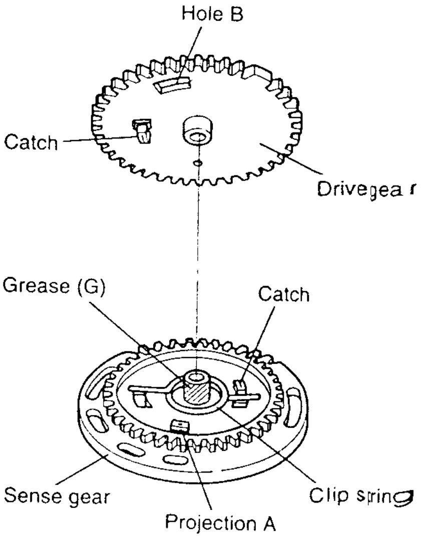

Hole B
Catch
Drivegear
Grease (G)
Catch
Sense gear
Projection A
Clip spring

Fig. 2-2-5

2-3 Door Arm

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the side plate, sense gear, and takeup arm. (Refer to Para. 2-2 for the removal method.)

③ Unfasten the catch shown in Fig. 2-3-1 to remove the door arm. (The simple way is to pull the door arm at the same time as unfastening the catch.)

(Installation)

① Fix the door arm to the shaft A shown in Fig. 2-3-1 and secure it with the catch so that the parts A and B are inside of the cassette housing as shown in Fig. 2-3-2.

② Install the takeup arm, the sense gear, and the side plate. (Refer to Para. 2-2 for the installation method.)

③ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

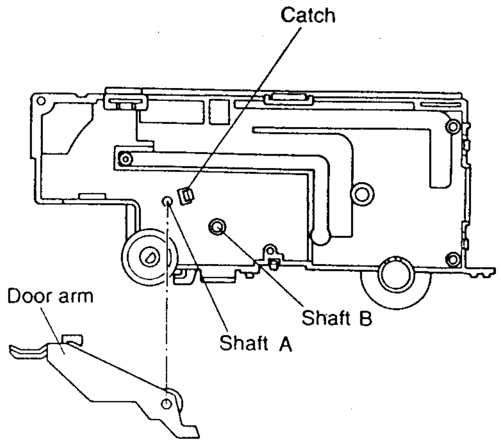


Fig. 2-3-1

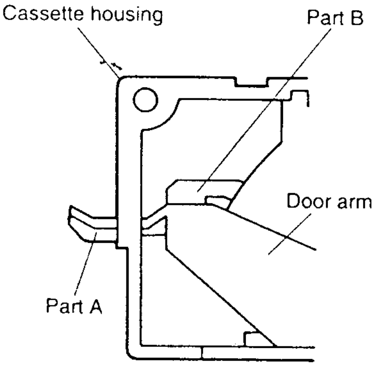


Fig. 2-3-2

2-4 Gear S and Gear T

(Removal)

① Follow the removal method in Items ① to ⑤ of Para. 2-2.

② Unfasten the catch fastening the gear T from the inside of the cassette housing to remove the FL shaft to which the gear S and T are attached.(Refer to Fig. 2-4-2)

③ Pull out the gear S and T from the FL shaft.

(Installation)

① Fix the gear S and T to the FL shaft.

② Install the FL shaft, first at the end attached to the gear T and then at the end to the gear S.

③ Follow the installation method in Item ⑤ to ⑧ in Para. 2-2.

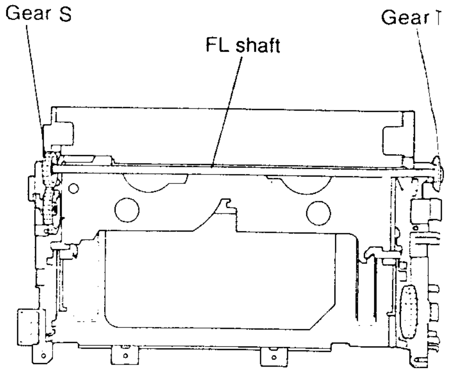


Fig. 2-4-1

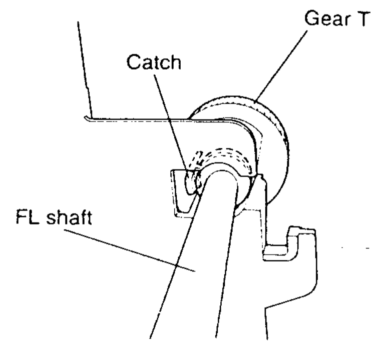


Fig. 2-4-2

2-5 Wheel Gear

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)
② Remove the side plate and sense gear. (Refer to Para. 2-2 for the removal method.)
③ Unfasten the catch shown in Fig. 2-5-1 to remove the wheel gear.

(Installation)

① Install the wheel gear on the position shown in Fig. 2-5-1 from the inside of the cassette housing.
② Install the sense gear and side plate. (Refer to Para. 2-2 for the installation method.)
③ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

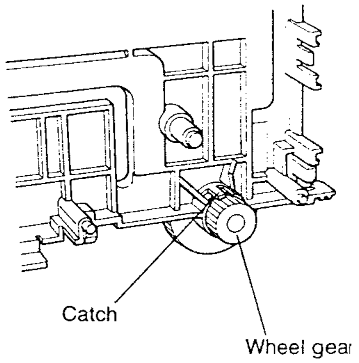


Fig. 2-5-1

2-6 Supply Arm and Arm Spring(SP)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)
② Remove the side plate.(Refer to Item ② of Para. 2-2 for the removal method.)
③ Remove the sense gear.(Refer to Item ③ of Para. 2-2 for the removal method.)
④ Pull the lock levers on both the supply and takeup side, shown in Fig. 2-6-1, in the direction shown by the arrow to shift the bottom plate to the position shown in Fig. 2-6-2.
⑤ Remove the takeup arm. (Refer to Item ⑤ of Para. 2-2 for the removal method.)
⑥ Pull part A, fixed to the supply arm, in the direction shown by the arrow to remove the bottom plate. (Refer to Fig. 2-6-3.

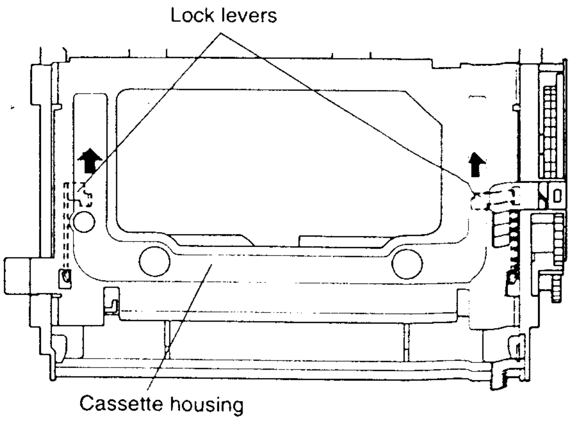


Fig. 2-6-1

⑦ Turn the supply arm in the direction shown by the arrow to shift part B, shown in Fig. 2-6-4, so that it aligns with the catch. Unfasten the catch to remove the supply arm.

⑧ Detach the arm spring from the supply arm as shown in Fig. 2-6-5.

(Installation)

① Attach the arm spring to the supply arm as shown in Fig. 2-6-5.

② Install the supply arm in the position shown in Fig. 2-6-4. (Align the catch with the part B of the supply arm.)

③ Insert the bottom plate so that the part A of it enters between the supply arm and the supply spring as shown in Fig. 2-6-3. Then install the bottom plate so that part C of it in the right position as shown in Fig. 2-6-6.

④ Follow the installation method in Item ⑤ to ⑧ in Para. 2-2.

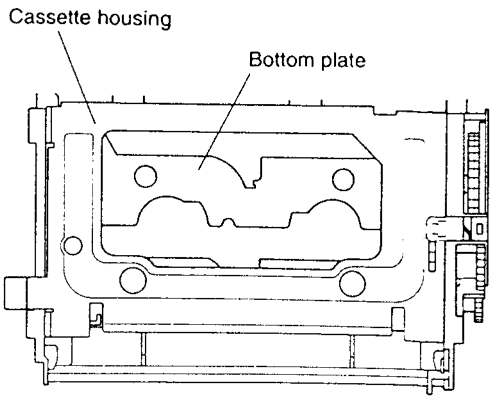

Cassette housing
Bottom plate

Fig. 2-6-2

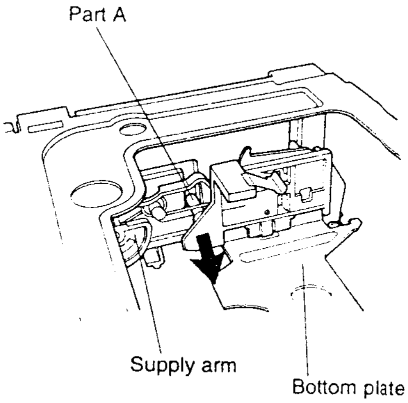

Part A
Supply arm
Bottom plate

Fig. 2-6-3

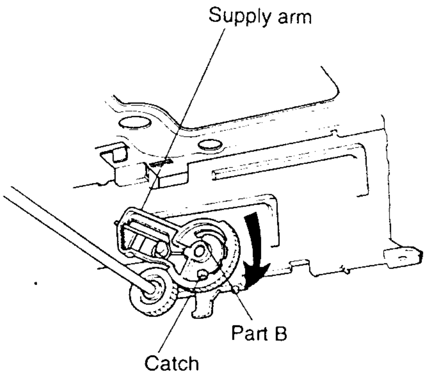

Supply arm
Part B
Catch

Fig. 2-6-4

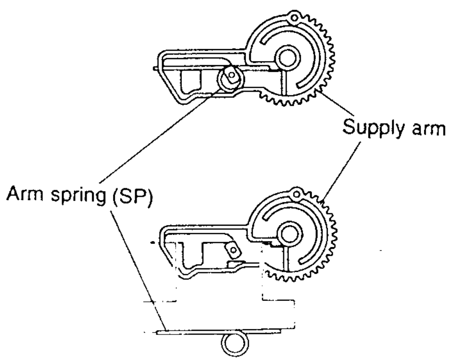

Supply arm
Arm spring (SP)

Fig. 2-6-5

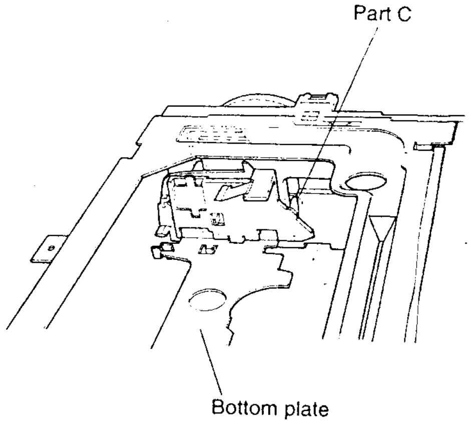

Part C
Bottom plate

Fig. 2-6-6

2-7 Jut

(Removal)

① Follow the removal method in Items ① to ⑥ of Para. 2-6.

② Unfasten the four catches(ⓐ,ⓑ,ⓒ and ⓓ) shown in Fig. 2-7-1 to remove the jut and the jut spring.

(Installation)

① Install the jut and the jut spring as shown in Fig. 2-7-1. (Insert the jut spring into the part A of the jut before installing the jut. Hook one end of the jut spring with the outside of the catch(ⓐ) and the other end with part B of the jut.)

② Install the bottom plate according to the installation method in ③ of Para. 2-6.

③ Follow the installation method in Item ⑤ to ⑧ in Para. 2-2.

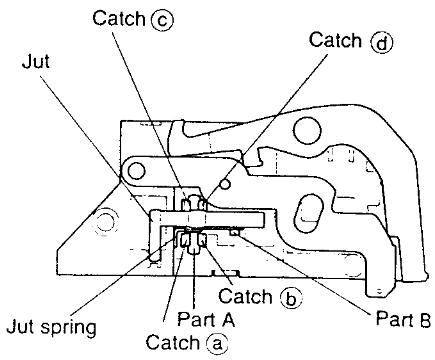

Catch ⓒ
Catch ⓓ
Jut
Catch ⓑ
Jut spring
Part A
Part B
Catch ⓐ

Fig. 2-7-1

2-8 PCB-HEAD-AMP

(Removal)

① Unfasten the hook and raise the head amp shield cover shown in Fig. 2-8-1 to remove it.

② Unsolder the terminals of the mode switch, the drum motor, and the rotary transformer shown in Fig. 2-8-1.

③ Lift the stopper of the A/C head assembly in Fig. 2-8-4 slightly upward and disconnect the lead connector(bare wire), connecting the PCB-HEAD-AMP and the PCB-A/C-HEAD.

④ Disconnect the lead connector(point A), connected to the FE head. (Refer to Fig. 2-8-2.)

⑤ Reverse the deck and disconnect the lead card, connecting the PCB of the capstan motor and the PCB-HEAD-AMP. (Refer to Fig. 2-8-3.)

⑥ Remove the three screws(ⓐ,ⓑ and ⓒ) and slowly pull the PCB-HEAD-AMP in the direction shown by the arrows. (Refer to Fig. 2-8-1.)

(Installation)

① Insert the terminals of the mode switch, the drum motor, and the rotary transformer, and the boss, adjacent to the mode switch, in the matching holes on the PCB-HEAD-AMP and secure the PCB-HEAD AMP with the three screws(ⓐ,ⓑ and ⓒ) in the order, ⓑ→ⓒ→ⓐ.(Refer to Fig. 2-8-1)

② Solder the pins mentioned in Item ①.

③ Reverse the deck and reconnect the lead card connecting the PCB of the capstan motor and the PCB-HEAD AMP (Refer to Fig. 2-8-3.) Take care not to fit lead card upside down.

④ Connect the lead connector, connected to the FE head, to the point A. (Refer to Fig. 2-8-2.)

⑤ Shift part B of the bare wire lead extended from the head amp slightly downward, lower the stopper, and connect it to the connector on the PCB-A/C-HEAD. (Refer to Fig. 2-8-4)

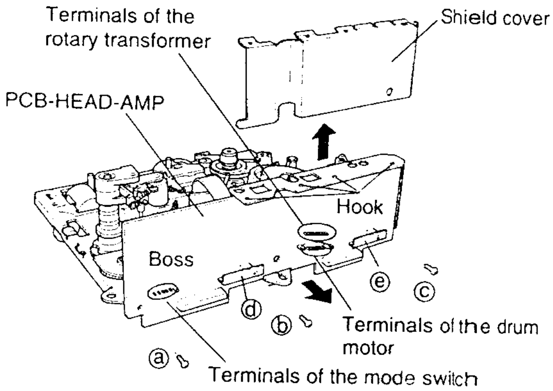

Terminals of the rotary transformer
Shield cover
PCB-HEAD-AMP
Hook
Boss
ⓔ
ⓒ
ⓓ
ⓑ
Terminals of the drum motor
ⓐ
Terminals of the mode switch

Fig. 2-8-1

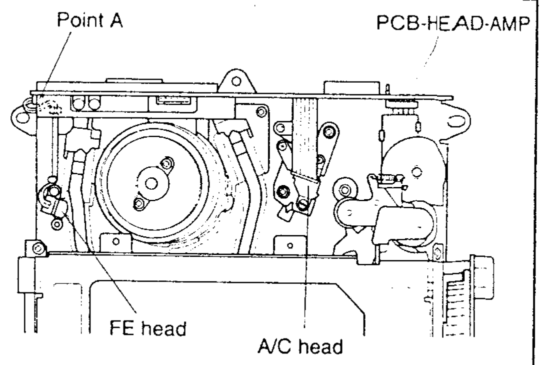

Point A
PCB-HEAD-AMP
FE head
A/C head

Fig. 2-8-2

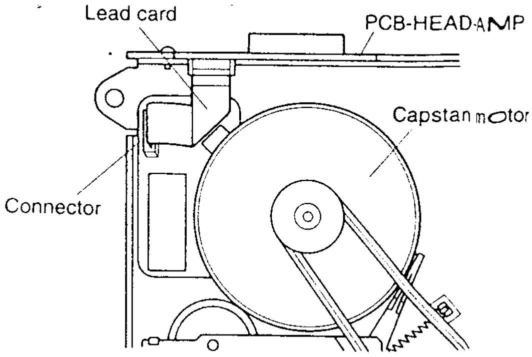

Lead card
PCB-HEAD-AMP
Capstan motor
Connector

Fig. 2-8-3

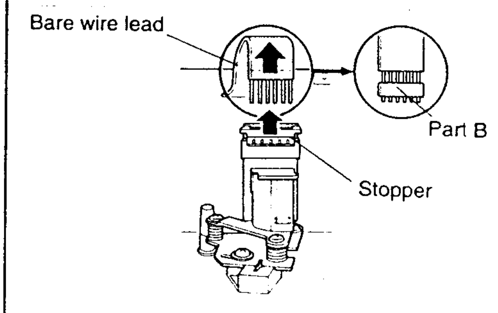


Fig. 2-8-4

2-9 Brush (Refer to the Fig.2-9-1.)

(Removal)

① Reverse the deck and remove the three screws(ⓐ,ⓑ and ⓒ) to remove the brush.

(Installation)

① Attach the brush on the position shown in Fig. 2-9-1 and secure it with the screws ⓐ and ⓑ. Tighten screw ⓒ.

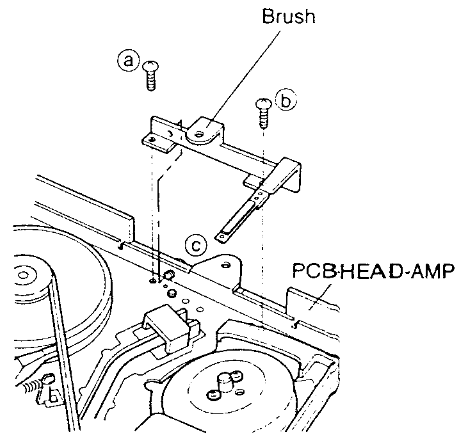


Fig. 2-9-1

2-10 Drum Assembly

Note: When removing and installing the drum assembly, do not touch the tape running surface with your hands.

Note: Take care not to bend the PCB-HEAD-AMP.

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the PCB-HEAD-AMP. (Refer to Para. 2-8 for the removal method.)

③ Unscrew the three screws(ⓐ,ⓑ and ⓒ) on the reverse side of the deck and remove the drum assembly. (Refer to Fig. 2-10-1.)

④ Slowly raise the drum assembly upward, take care not to touch other parts around it. (Do not touch the tape running surface of the drum with your hand.)

Note: During removal, support the drum assembly when it is not secured by fastening screws.

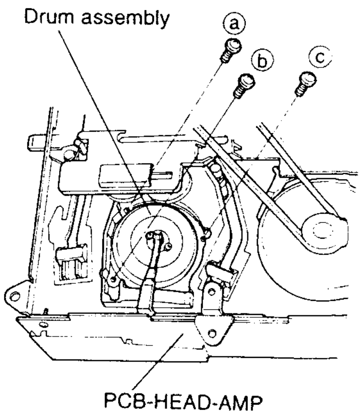


Fig. 2-10-1

(Installation)

① Carefully place the new drum assembly on the main plate of the deck, take care not to touch other parts.

② Holding the drum assembly, reverse the deck and secure the drum assembly with the three screws(ⓐ,ⓑ and ⓒ). (Tighten the screws in the order ⓐ→ⓑ→ⓒ and finally tighten again ⓐ.)(Refer to Fig. 2-10-1.)

③ Install the PCB-HEAD-AMP. (Refer to Para. 2-8 for the installation method.)

④ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

[Another Method]

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Unsolder the soldered pins on the terminal of the drum assembly and the terminal of the rotary transformer.(Refer to Fig. 2-10-2)

③ Unscrew the three screws(ⓐ,ⓑ and ⓒ) on the reverse side of the deck and remove the drum assembly. (Refer to Fig. 2-10-1.)

④ Slightly raise the drum assembly in the opposite direction of the pins. Remove the pins of the drum assembly and of the rotary transformer from the PCB-HEAD-AMP. Slowly remove the drum assembly, take care not to touch other parts around it.

(Installation)

① Carefully place the drum assembly on the main plate, take care not to touch the other parts around it. The pins of the drum assembly and the rotary transformer must enter the holes of the PCB-HEAD-AMP.

② Secure the drum assembly with the three screws(ⓐ,ⓑ and ⓒ) on the reverse side of the deck. (Tighten the screws in the order ⓐ→ⓑ→ⓒ and finally tighten ⓐ again.) (Refer to Fig. 2-10-1.)

③ Solder the pins of the drum assembly and the rotary transformer. (Refer to Fig. 2-10-2.)

④ Install the cassette housing.(Refer to Para. 2-1 for the installation method.)

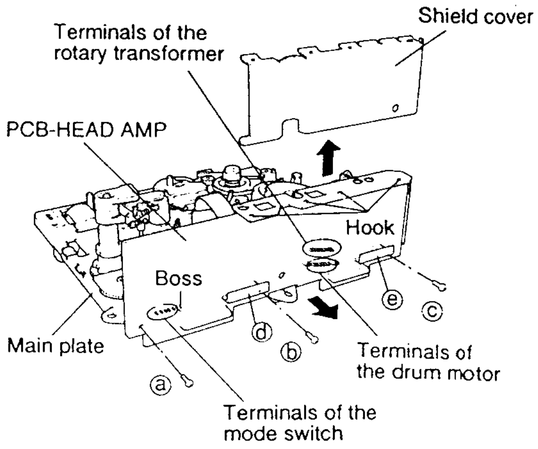

Shield cover
Terminals of the rotary transformer
PCB-HEAD AMP
Hook
Boss
ⓔ
ⓒ
Main plate
ⓓ
ⓑ
Terminals of the drum motor
ⓐ
Terminals of the mode switch

Fig. 2-10-2

2-11 Upper Drum and Drum Motor

Note: When only the upper drum is to be replaced, follow the procedure of Items ①~④ of the removal method and ②~④ of the installation method.

(Removal)

① Remove the drum assembly. (Refer to Para. 2-10 for the removal method.)

② Unsolder the terminals of each head on the upper drum.

③ Remove the screws holding the upper drum shown in Fig. 2-11-1.

④ Remove the upper drum slowly and carefully.

⑤ Remove the screws (ⓐ and ⓑ) shown in Fig. 2-11-1 to remove the rotor case and damper. Remove the screws (ⓒ,ⓓ and ⓔ) to remove the drum motor.

(Installation)

Note: Handle the upper drum carefully as the video heads are fragile.

① Attach the rotary transformer and the drum motor so that the terminals of both face in the same direction, and secure them with the screws (ⓒ,ⓓ and ⓔ). Secure the rotor case with the screws (ⓐ and ⓑ).

② Attach the upper drum so that the hole on the lower drum shaft is in the position shown in Fig. 2-11-2, take care not to damage the terminals.

- Models with four heads
  The white painted (shaded) area of the upper drum must be 90° from the hole of the lower drum shaft.
- Models with three heads
  The white painted (shaded) area of the upper drum must be 270° from the hole of the lower drum shaft.

③ Secure the upper drum with the two fastening screws. (Tighten the screws alternately.)

④ Solder the terminals of each head.

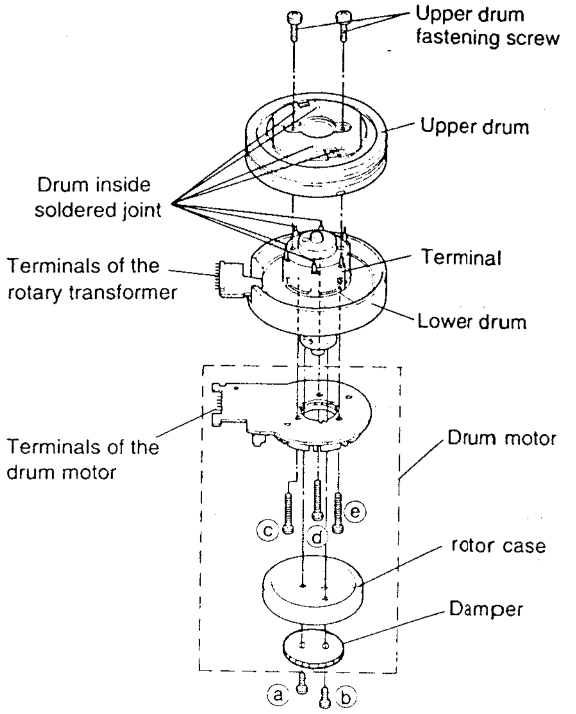

Upper drum fastening screw
Upper drum
Drum inside soldered joint
Terminals of the rotary transformer
Terminal
Lower drum
Terminals of the drum motor
Drum motor
ⓒ
ⓓ
ⓔ
rotor case
Damper
ⓐ
ⓑ

Fig. 2-11-1

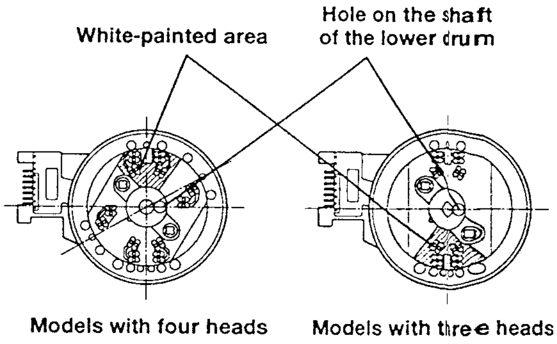

White-painted area
Hole on the shaft of the lower drum
Models with four heads
Models with three heads

Fig. 2-11-2

2-12 Safety Spring and Safety Lever

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Unhook the safety spring with a tweezers.

③ Turn the safety lever clockwise and remove by raising it upward as shown in Fig. 2-12-2.

(Installation)

① Install the safety lever so that part A aligns with the hole on the main plate, shown in Fig. 2-12-1, and part B with the hole of the safety arm on the reverse side of the deck.

② Fix the safety spring to the shaft of the safety lever and hook it as shown in Fig. 2-12-3.

③ Install the cassette housing.(Refer to Para. 2-1 for the installation method.)

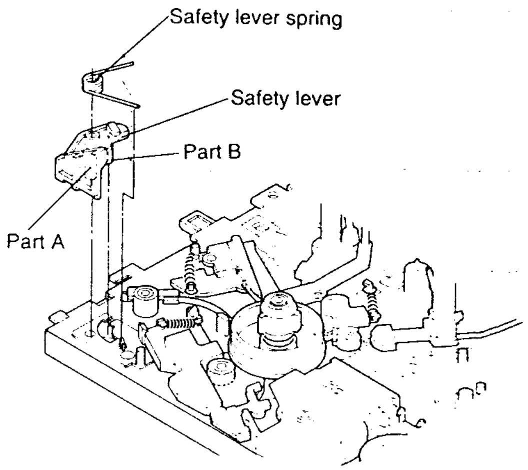

Safety lever spring
Safety lever
Part B
Part A

Fig. 2-12-1

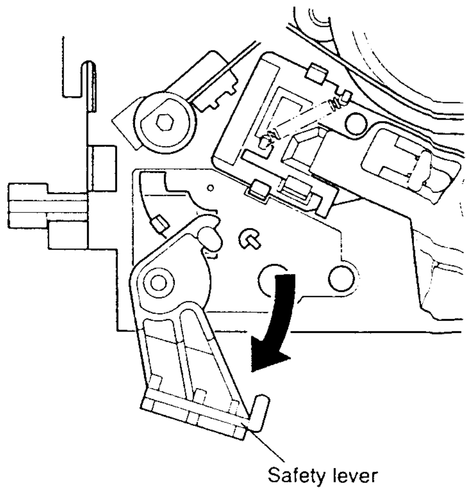

Safety lever

Fig. 2-12-2

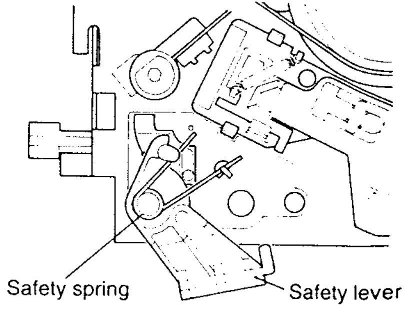

Safety spring
Safety lever

Fig. 2-12-3

2-13 Safety Arm

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the safety spring and the safety lever. (Refer to Para. 2-12 for the removal method.)

③ Unfasten the catch to remove the safety arm. (Refer to Fig. 2-13-1).

(Installation)

① Reverse the deck and fix the safety arm to the shaft of the main plate so that its catch is within the range shown in Fig. 2-13-2.

② Install the safety spring and the safety lever. (Refer to Para. 2-12 for the installation method.)

③ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

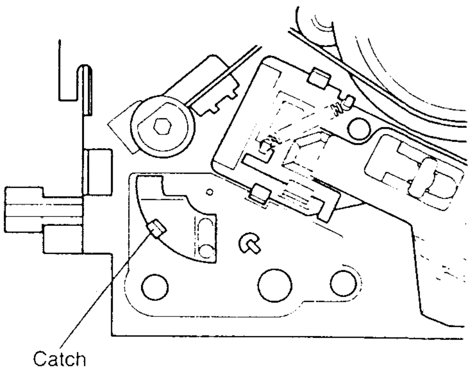


Fig. 2-13-1

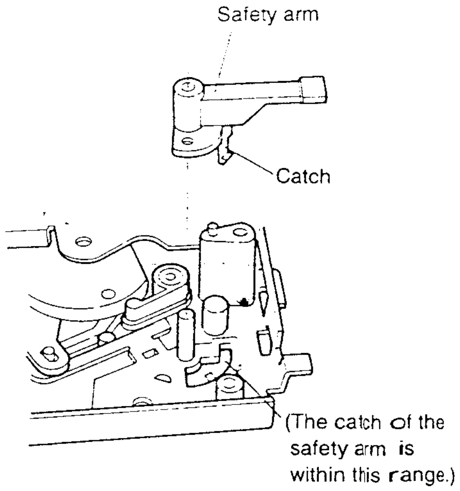


Fig. 2-13-2

2-14 Sub Brake(SP) and Sub Spring(SP)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Detach the sub spring(SP).

③ Reverse the deck and unfasten the catch with a small screw driver, etc., to remove the sub brake(SP) as shown in Fig. 2-14-2.

(Installation)

① Install the sub brake(SP) with care not to score the tension brake belt(without loosening of the tension brake belt).(Refer to Fig. 2-14-1)

② Attach the sub spring(SP).

③ Install the cassette housing.(Refer to Para. 2-1 for the installation method.)

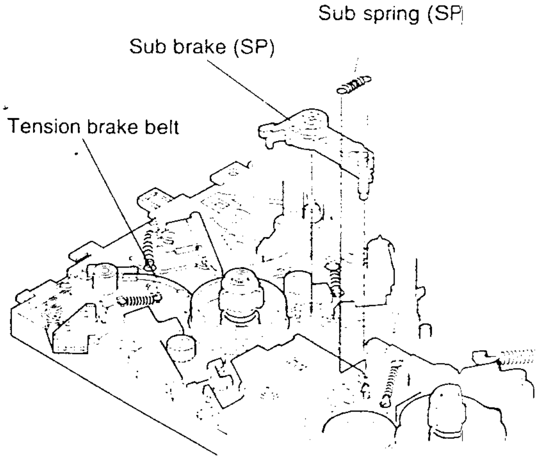


Fig. 2-14-1

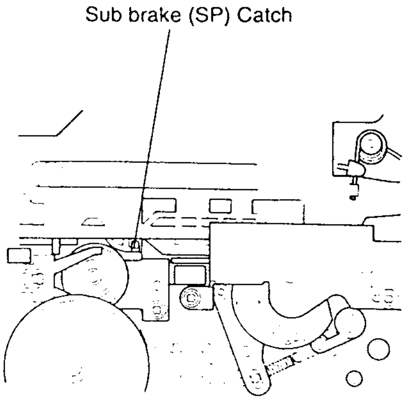

Sub brake (SP) Catch

Fig. 2-14-2

2-15 Main Brake (SP) and Main Brake Spring J(SP) (Refer to Fig. 2-15-1.)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)
② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)
③ Unhook the main brake spring J(SP).
④ Raise the main brake(SP) upward to remove it.

(Installation)

① Install the main brake(SP) on the main plate and attach the main brake spring J(SP).
② Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)
③ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

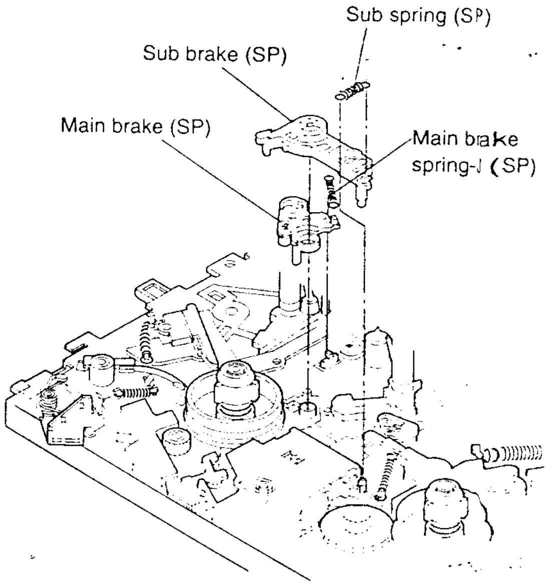

Sub spring (SP)
Sub brake (SP)
Main brake (SP)
Main brake spring-J (SP)

Fig. 2-15-1

2-16 Sub Off Lever, Sub Brake(TU), and Sub Spring(TU)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

③ Unfasten the catch of with a small screw driver, etc., and raise the sub off lever upward to remove it.(Refer to Fig. 2-16-2)

④ Remove the sub spring(TU). (Refer to Fig. 2-16-1.)

⑤ Unfasten the catch with a small screw driver, etc., and raise the sub brake(TU) upward to remove it as shown in Fig. 2-16-2.

(Installation)

① Apply the grease(PG-641)[859D055030] to the area shown in Fig. 2-16-3.

② Install the sub brake(TU) on the main plate.

③ Install the sub off lever so that the hole A aligns with the boss of the sub brake(TU) as shown in Fig. 2-16-1.

④ Install the sub spring(TU).

⑤ Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)

⑥ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

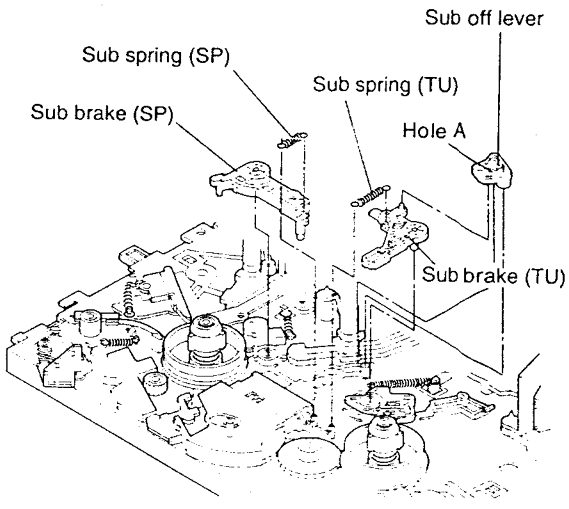

Sub off lever
Sub spring (SP)
Sub spring (TU)
Sub brake (SP)
Hole A
Sub brake (TU)

Fig. 2-16-1

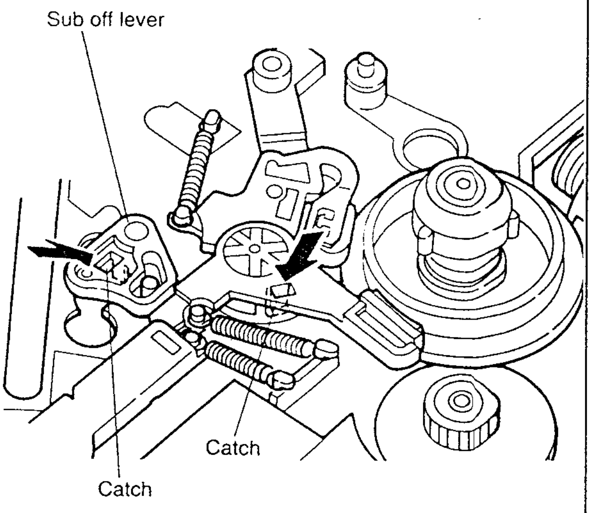

Sub off lever
Catch
Catch

Fig. 2-16-2

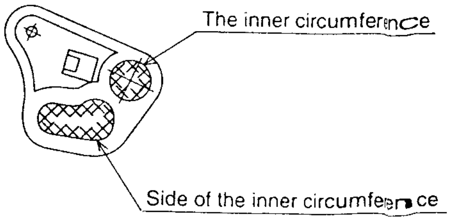

The inner circumference
Side of the inner circumference

Fig. 2-16-3

2-17 Main Brake(TU) and Main Brake Spring J(TU)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

③ Remove the sub off lever, the sub brake(TU), and the sub spring(TU). (Refer to Para. 2-16 for the removal method.)

④ Remove the main brake spring J(TU) and raise the main brake(TU) upward to remove it. (Refer to Fig. 2-17-1.)

(Installation)

① Install the main brake(TU) on the main plate assembly so that the coupling portion with the main brake release lever is as shown in Fig. 2-17-2.

② Install the main brake spring J(TU).

③ Install the sub brake(TU), the sub off lever, and the sub spring(TU). (Refer to Para. 2-16 for the installation method.)

④ Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)

⑤ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

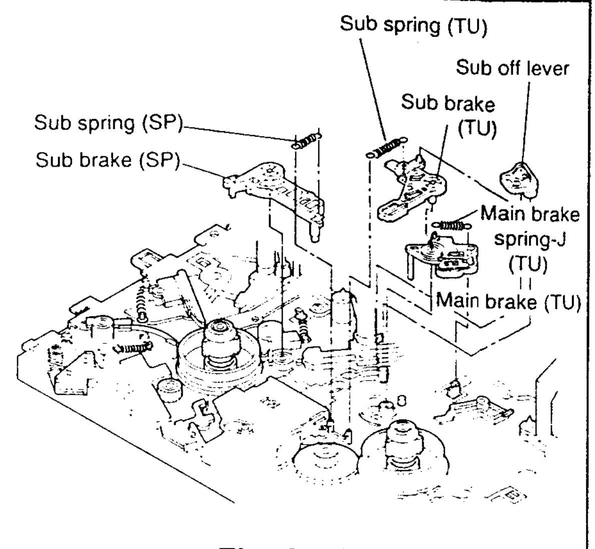

Sub spring (TU)
Sub off lever
Sub brake (TU)
Sub spring (SP)
Sub brake (SP)
Main brake spring-J (TU)
Main brake (TU)

Fig. 2-17-1

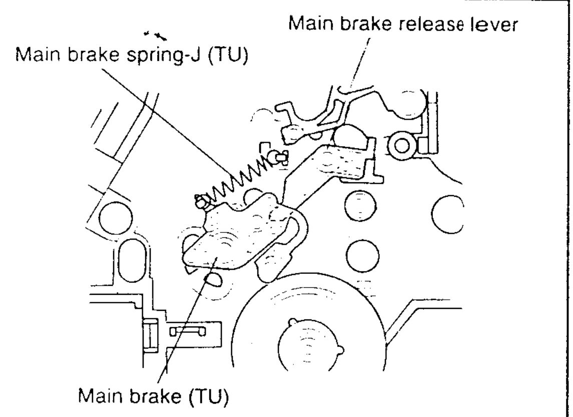

Main brake release lever
Main brake spring-J (TU)
Main brake (TU)

Fig.2-17-2

2-18 ID Swing Lever, Revolution Lever, and Revolution Spring

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Reverse the deck and remove the grip ring attached to the shaft G of the charge assembly.

③ Unfasten the two catches(A, B) to remove the charge assembly.

④ Remove the revolution spring with a tweezers.

⑤ Slide the revolution lever in the direction shown by the arrow and unfasten it from the catch C of the ID swing lever.(Refer to Fig. 2-18-1)

⑥ Detach the charge spring from the ID swing lever.

(Installation)

① Apply the grease(PG-641)[859D055030] to the areas shown in Fig. 2-18-2 of the new revolution lever and the ID swing lever.

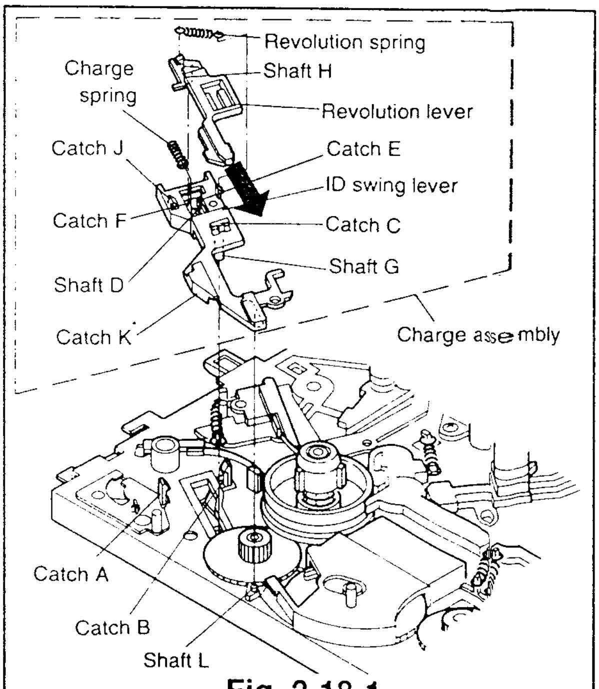

Revolution spring
Charge spring
Shaft H
Revolution lever
Catch J
Catch E
ID swing lever
Catch F
Catch C
Shaft G
Shaft D
Catch K
Charge assembly
Catch A
Catch B
Shaft L

Fig. 2-18-1

② Fix the charge spring to shaft D of the ID swing lever and compress it to hook its ends with the catches E and F.(Refer to Fig. 2-18-1)

Note: The charge spring should be installed in the directions shown below.

(Longitudinal Direction)

The bent tip is attached on the shaft D.

(Traverse Direction)

The wider semicircle is on the left as shown in Fig. 2-18-1.

③ Align the shaft H of the revolution lever with the position shown in Fig. 2-18-1. Insert catch C of the ID swing lever into the hole of the revolution lever, pushing the charge spring with a revolution lever in the direction shown by the arrow. At the same time, hook the ends of the revolution lever with the catches J and K.

④ Attach the revolution spring with a tweezers.

⑤ Install the charge assembly so that shaft G enters into the oval hole of the charge lever on the reverse side of the deck and the groove of the charge assembly fits the shaft as shown in Fig. 2-18-1. Secure the charge assembly with the catch A and B.

⑥ Reverse the deck and fix the new grip ring to the shaft G of the charge assembly.

⑦ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

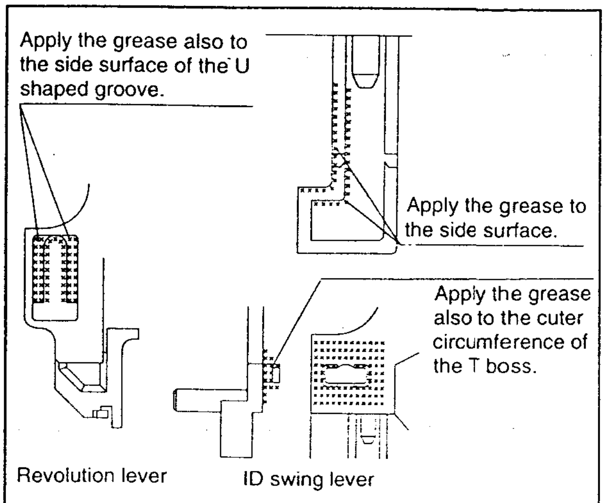

Apply the grease also to the side surface of the U shaped groove.
Apply the grease to the side surface.
Apply the grease also to the cuter circumference of the T boss.
Revolution lever
ID swing lever

Fig. 2-18-2

2-19 Tension Arm, Tension Brake Belt, and Tension Spring

Note: During removal and installation, take care not to change the shape of the tension brake belt.

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for removal method.)

② Supply a voltage(approximately 5V DC plus voltage on the red wire) to the loading motor and slide the tape guide assembly completely to the loaded position,to set it to the loaded position.

③ Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

④ Unfasten the catch of the part A on the tension brake belt and raise the part A to unfasten the tension brake belt from the supply reel disk.(Refer to Fig. 2-19-1)

⑤ Remove the tension spring, unfasten the catch shown in Fig. 2-19-2, and raise the tension arm upward to remove it.

⑥ Reverse the tension arm, unfasten the catch with a tweezers as shown in Fig. 2-19-3 to remove the tension brake belt.

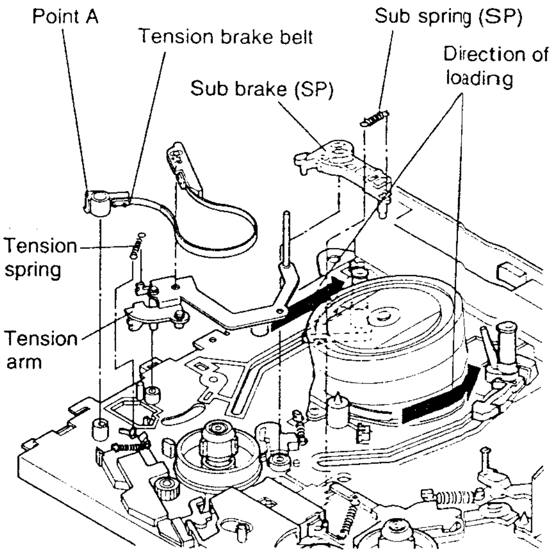

Point A
Tension brake belt
Sub brake (SP)
Sub spring (SP)
Direction of loading
Tension spring
Tension arm

Fig. 2-19-1

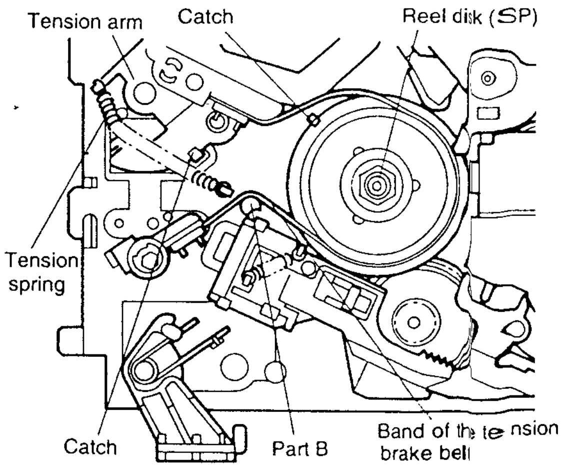

Tension arm
Catch
Reel disk (SP)
Tension spring
Catch
Part B
Band of the tension brake belt

Fig. 2-19-2

(Installation)

① Insert the catch in the position of the tension arm as shown in Fig. 2-19-3 to fasten the tension brake belt on the tension arm. (Take care not to let projection C, next to the catch of the tension brake belt touch the tension arm.)

② Install the tension arm, where the tension brake belt is fastened, on the main plate.

③ Fasten the tension brake belt around the supply reel disk. (The band of the tension brake belt must pass the outside of the catch shown in Fig. 2-19-2 and inside of the part B.)

④ Attach the tension spring.

⑤ Install the sub brake(SP) and sub spring(SP). (Refer to Para. 2-14 for the installation method.)

⑥ Supply voltage(approximately 5V), reversing the polarity used in ② of the Removal method, to set the motor to the unloaded position.

⑦ Make sure that the holes (matching mark M) on the body and cogwheel of the mode switch align with each other as shown in Fig. 2-19-4. At the same time confirm that the hole of the gear pinch aligns with the matching marks of the gear joint J and the ▽mark on the mode switch cogwheel,refer to Fig. 2-19-5. This indicates the J deck is in the EJECT mode.

⑧ If the deck is not completely set to the eject mode, turn part D of the pulley worm J by hand to set the eject mode.

Turn in the direction a ······ for loading
Turn in the direction b ······ for unloading
(Refer to Fig. 2-19-6)

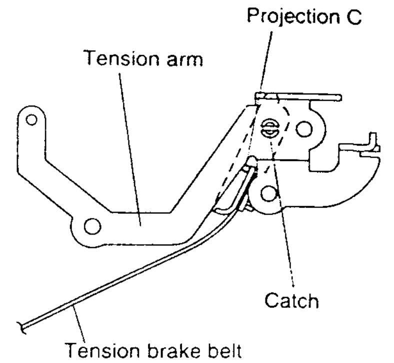

Projection C
Tension arm
Catch
Tension brake belt

Fig. 2-19-3

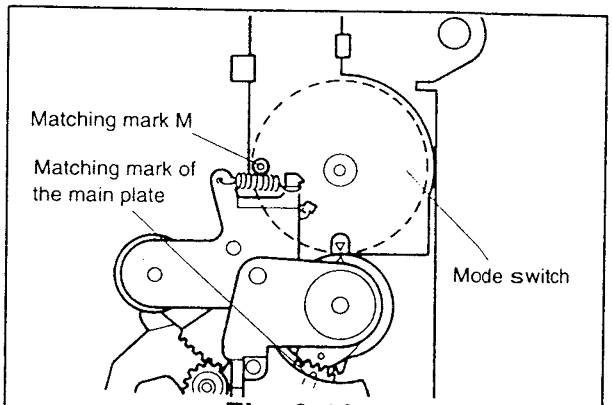

Matching mark M
Matching mark of the main plate
Mode switch

Fig. 2-19-4

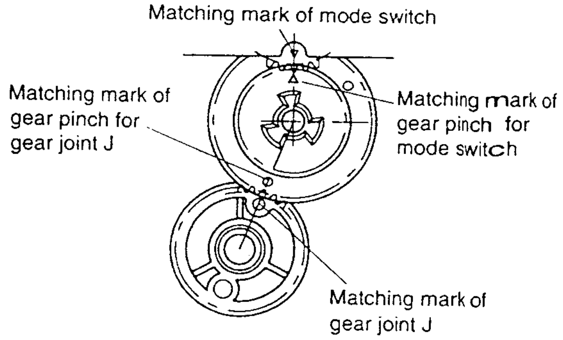

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 2-19-5

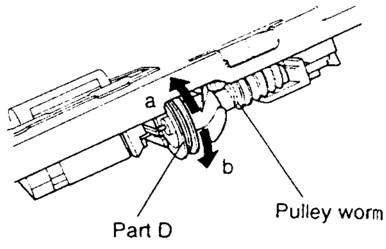

a
b
Part D
Pulley worm J

Fig. 2-19-6

2-20 Takeup Reel Disk and Gear R(takeup side)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

③ Remove the sub off lever, the sub brake(TU), and the sub spring(TU). (Refer to Para. 2-16 for the removal method.)

④ Unfasten the catch shown in Fig. 2-20-1 and raise the takeup reel disk upward to remove it from the shaft.

⑤ Raise the gear R(takeup side) upward to remove it from the shaft. (Refer to Fig. 2-20-2.)

(Installation)

① Install the gear R(takeup side) on the shaft. (Refer to Fig. 2-20-2.)

② Install the takeup reel disk on the shaft.(Refer to Fig. 2-20-2)

③ Install the height adjusting jig [master plane](used for F deck: Part No.859C342020) in the specified position. (Insert the jig into hole A, shown in Fig. 2-20-3, so that the jig sets on part B and the end of part C. Take care that the jig does not touch the supply and takeup reel disks.)

④ Place the height adjusting jig [square](used for E deck: Part No.859C341070) on the jig installed in Item ③ as shown in Fig. 2-20-4. Make sure that the height is correct (between A and B).

⑤ Adjust the height of the supply reel disk by varying the number of the washers (Part No.552C017020) under the disk.

A) If it is high, remove washer(s).

B) If it is low, add washer(s).

⑥ Install the sub brake(TU), the sub off lever, and the sub spring(TU). (Refer to Para. 2-16 for the installation method.)

⑦ Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)

⑧ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

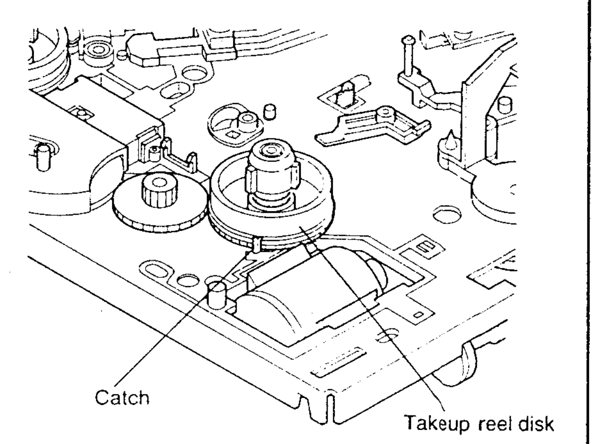

Catch
Takeup reel disk

Fig. 2-20-1

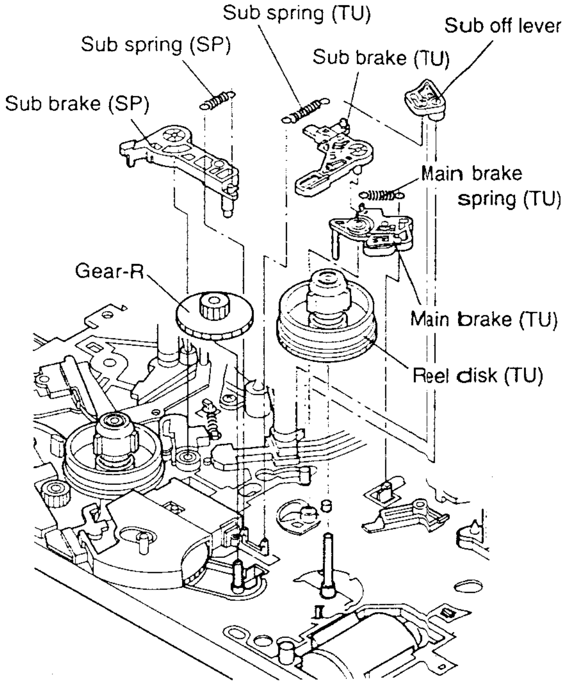

Sub spring (TU)
Sub off lever
Sub spring (SP)
Sub brake (TU)
Sub brake (SP)
Main brake spring (TU)
Gear-R
Main brake (TU)
Reel disk (TU)

Fig. 2-20-2

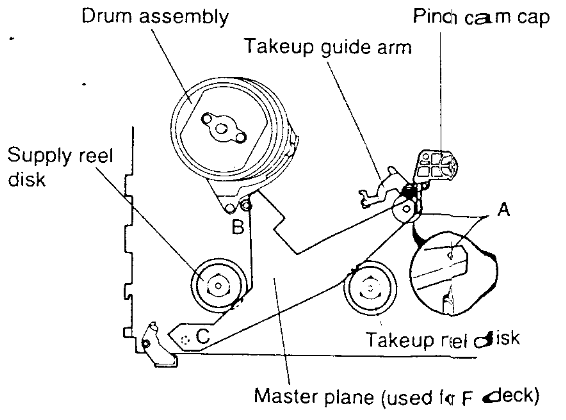

Drum assembly
Pinch cam cap
Takeup guide arm
Supply reel disk
A
B
C
Takeup reel disk
Master plane (used for F deck)

Fig. 2-20-3

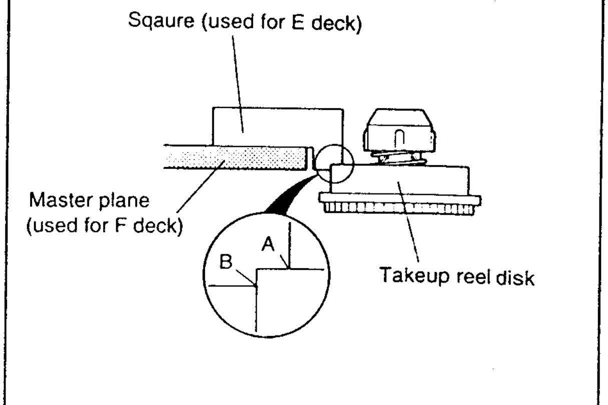

Sqaure (used for E deck)
Master plane
(used for F deck)
A
B
Takeup reel disk

Fig. 2-20-4

2-21 Supply Reel Disk

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)
② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.
③ Raise the part B of the tension brake belt upward to unfasten the belt from the supply reel disk as shown in Fig. 2-21-2. (Refer to Para. 2-19 for the removal method.)
④ Unfasten the catch shown in Fig. 2-21-1 and raise the supply reel disk upward to remove it from the shaft.

(Installation)

① Install the supply reel disk on the shaft.
② Install the height adjusting jig [master plane](used for F deck: Part No.859C342020) in the specified position. (Insert the jig into the hole A shown in Fig. 2-20-3 so that the jig sets on part B and the end of part C. Take care that the jig does not touch the supply and takeup reel disks.)
③ Place the height adjusting jig [square](used for E deck: Part No.859C341070) on the jig, previously installed placed in Item ④, as shown in Fig. 2-21-3. Make sure that the height is correct (between A and B).
④ Adjust the height of the supply reel disk by varying the number of the washers(Part No.552C017O20) under the disk.
    A) If it is high, remove washer(s).
    B) If it is low, add washer(s).

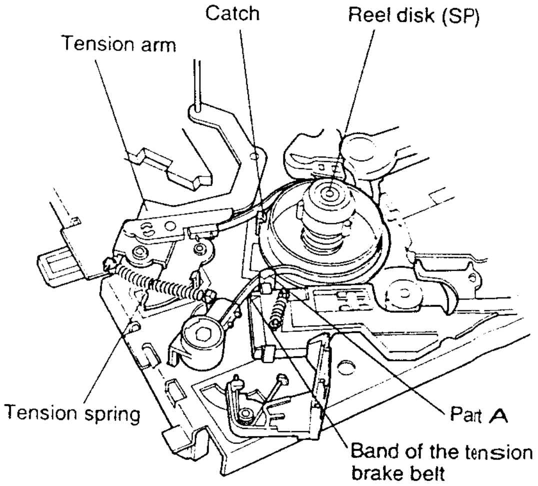

Catch
Reel disk (SP)
Tension arm
Tension spring
Part A
Band of the tension brake belt

Fig. 2-21-1

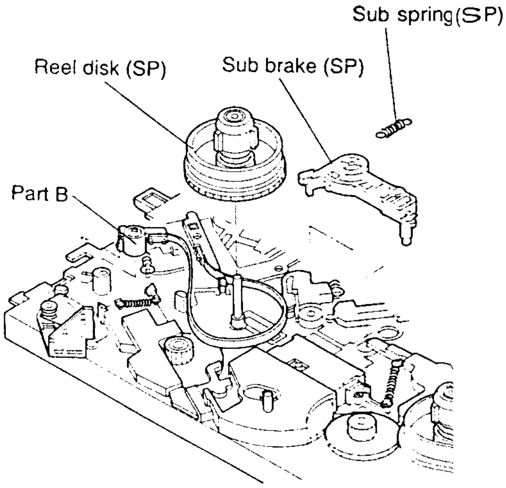

Sub spring(SP)
Reel disk (SP)
Sub brake (SP)
Part B

Fig. 2-21-2

⑤ Fasten the tension brake belt round on the supply reel disk, taking care not to score the belt and route part B of the tension brake belt as shown in Fig. 2-21-2. (Refer to Para. 2-19 for the installation method.) (The band of the tension brake belt must pass outside of the catch shown in Fig. 2-21-1 and inside of the part A.)
⑥ Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)
⑦ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

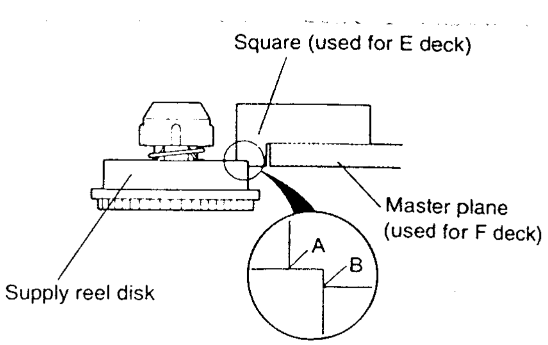

Square (used for E deck)
Master plane (used for F deck)
A
B
Supply reel disk

Fig. 2-21-3

2-22 Gear R(supply side) (Refer to Fig. 2-22-1.)

(Removal)
① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)
② Remove the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)
③ Unfasten the tension brake belt from the supply reel disk and remove the supply reel disk. (Refer to Para. 2-21 for the removal method.)
④ Remove the charge assembly. (Refer to item ② of Removal in Para. 2-18 for the removal method.)
⑤ Raise the gear R(SP) upward to remove it from the shaft.

(Installation)
① Install the gear R(SP) on the shaft.
② Install the supply reel disk. (Refer to Para. 2-21 for the installation method.)
③ Install sub brake(SP) and sub spring(SP). (Refer to Para. 2-14 for the installation method.)
④ Install the charge assembly. (Refer to Item ⑤ of Para. 2-18 for the installation method.)
⑤ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

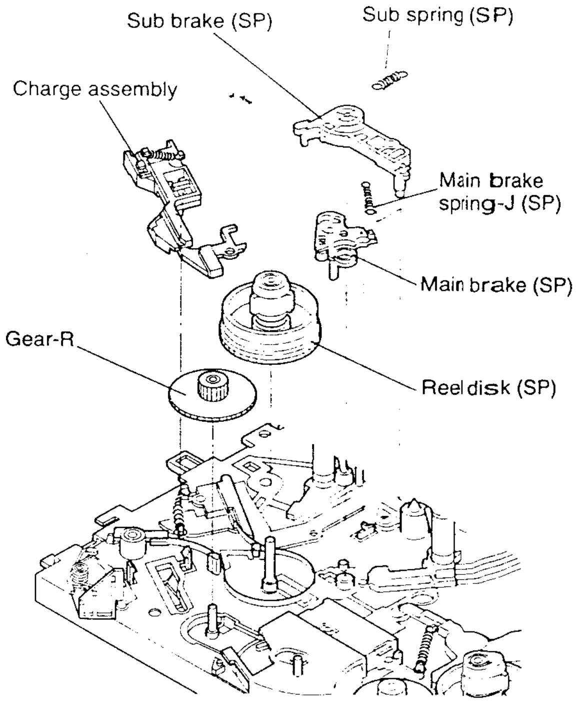

Sub brake (SP)
Sub spring (SP)
Charge assembly
Main brake spring-J (SP)
Main brake (SP)
Gear-R
Reel disk (SP)

Fig. 2-22-1

2-23 Main Brake Release Lever (Refer to Fig. 2-23-1.)

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the sub brake(SP), and the sub spring(SP). (Refer to Para. 2-14 for the removal method.)

③ Remove the sub off lever, the sub brake(TU), and the sub spring(SP). (Refer to Para. 2-16 for the removal method.)

④ Remove the main brake(TU) and the main brake spring J(TU). (Refer to Para. 2-17 for the removal method.)

⑤ Shift catch A of the main brake release lever, and push catch B at the same time, in the direction shown by each arrow. Unfasten catch B from the main plate to remove the main brake release lever. (Refer to Fig. 2-23-2).

(Installation)

① Install the main brake release lever so that the shaft enters the inside groove shown in Fig. 2-23-3 of the main gear J.

② Install the main brake(TU) and the main brake spring J(TU). (Refer to Para. 2-17 for the installation method.)

③ Install the sub brake(TU), the sub off lever, and the sub spring(TU). (Refer to Para. 2-16 for the installation method.)

④ Install the sub brake(SP) and the sub spring(SP). (Refer to Para. 2-14 for the installation method.)

⑤ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

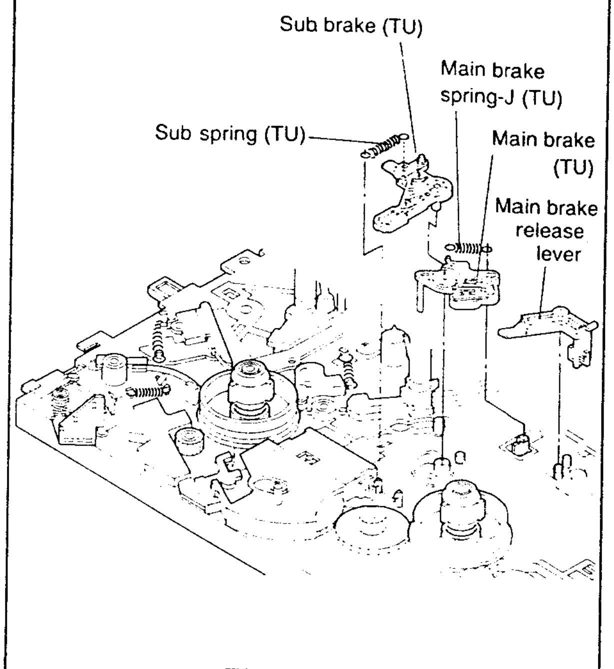


Fig. 2-23-1

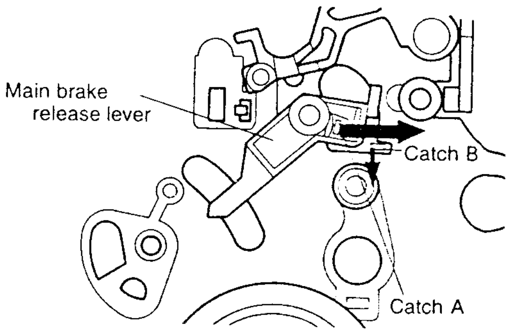


Fig. 2-23-2

Insert the boss of the main brake release lever into the position shown in the figure below of the main gear J.

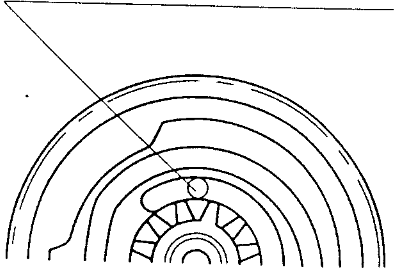


Fig. 2-23-3

2-24 Pinch Cam Cap, Pinch Roller Arm Assembly, Pinch Cam, Takeup Guide Gear, Gear Pinch, Takeup Guide Arm, and Takeup Guide Spring

(Removal)

① Unfasten the catch shown in Fig. 2-24-1 and raise the pinch cam cap upward to remove it.

② Raise the pinch roller arm assembly upward to remove it.

③ Raise the pinch cam and the takeup guide gear upward to remove them from the shaft.

④ Unfasten the two catches holding the mode switch and remove the gear pinch from the shaft, lift the mode switch only high enough to remove the gear pinch. (Take care not to break the pins of the mode switch.)

⑤ Remove the nut at the top of the takeup guide arm with a (5.5mm) box screw driver.

⑥ Raise the takeup guide arm upward to remove it.

⑦ Remove the takeup guide spring.

(Installation)

① Hook one end of the takeup guide spring with the takeup guide arm, fix the takeup guide spring to the shaft.

② Apply grease(PG-641)[859D055O30] around the top of the new takeup guide arm (the surface which touches with the nut). Fix the takeup guide arm to the shaft, and secure it with the nut. (Set the takeup guide arm to the height shown in Fig. 2-24-2 temporarily.)

③ Lift the mode switch, only high enough to install the gear pinch and place the gear pinch under the mode switch. Fix the mode switch to the shaft so that the matching marks of the gear pinch align with those of the gear joint J and the mode switch as shown in Fig. 2-24-3.

④ Install the takeup guide gear so that the first cog of the takeup guide arm aligns with the matching mark on the takeup guide gear as shown in Fig. 2-24-4.

⑤ Apply grease(G)[859D055O50] to the area shown in Fig. 2-24-5 of the new pinch cam.

⑥ Turn the takeup guide arm clockwise while inserting the pinch cam into the gear pinch. Install the pinch cam so that it aligns with the triple catch. (Excessive rotation of the takeup guide arm will keep it from returning, since the takeup guide gear is caught on the pinch roller cam.)

⑦ Apply the grease (PG-641)[859D055O30] to the new pinch cam cap on the area shown in Fig. 2-24-1.

⑧ Install the pinch roller arm assembly and the pinch cam cap.

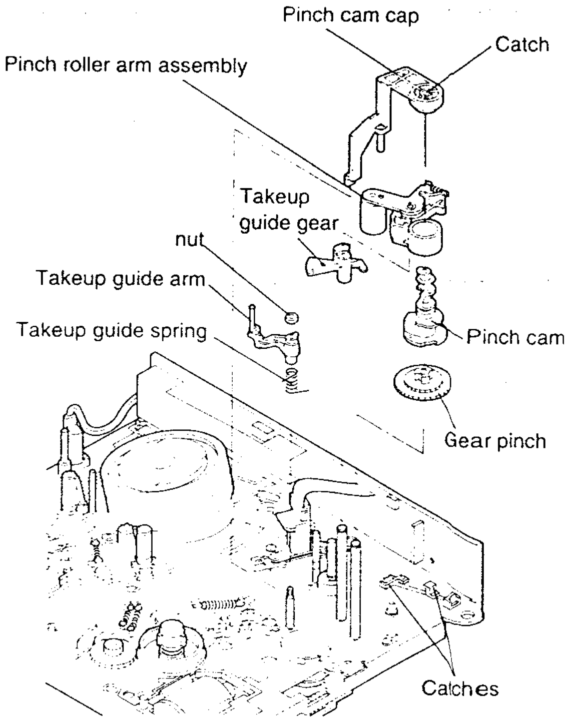

Pinch cam cap
Catch
Pinch roller arm assembly
Takeup guide gear
nut
Takeup guide arm
Takeup guide spring
Pinch cam
Gear pinch
Catches

Fig. 2-24-1

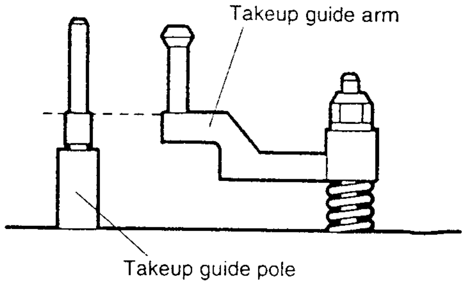

Takeup guide arm
Takeup guide pole

Fig. 2-24-2

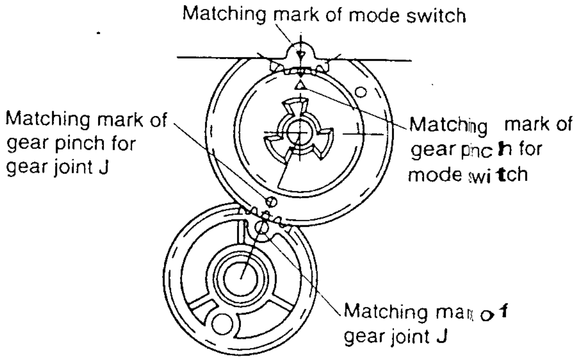

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 2-24-3

[Adjustment of Takeup Guide Arm Height]

Adjust the height of the takeup guide arm according to the following procedure.

① Place the height adjusting jig (for the F deck) in the reference position on the main plate (Refer to Fig. 2-20-3). Tighten the takeup guide arm fastening nut so that the lower flange of the takeup guide arm is level with point B of the height adjusting jig (for the E deck). (Refer to Fig. 2-24-6).

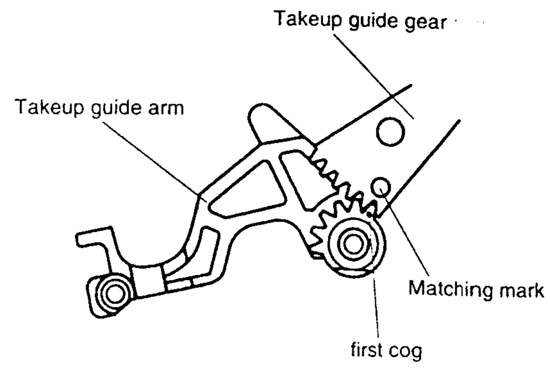

Takeup guide gear
Takeup guide arm
Matching mark
first cog

Fig. 2-24-4

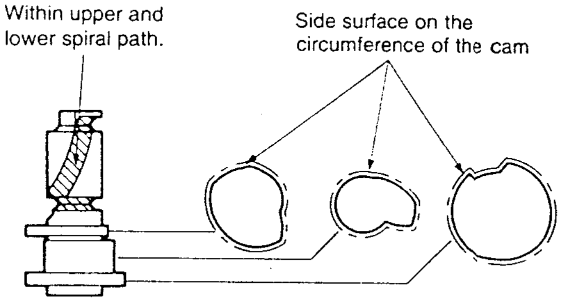

Within upper and lower spiral path.
Side surface on the circumference of the cam

Fig. 2-24-5

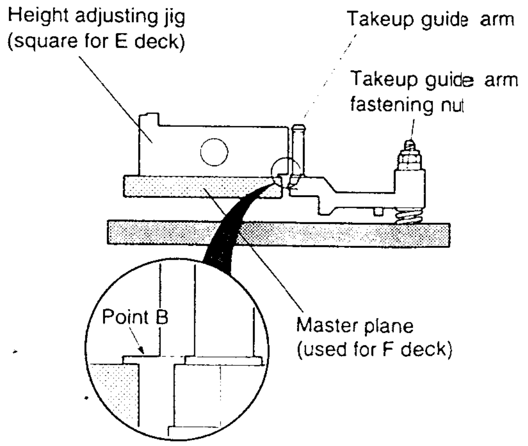

Height adjusting jig (square for E deck)
Takeup guide arm
Takeup guide arm fastening nut
Point B
Master plane (used for F deck)

Fig. 2-24-6

2-25 Pinch Roller, Roller Cap, Pinch Spring, and Pinch Cam Spring

Note: During removal and installation, do not expand the pinch spring more than 18mm and the pinch cam spring more than 27mm.

(Removal)

① Pry the pinch roller and the roller cap to remove them as shown in Fig. 2-25-1.

② Remove the pinch spring and the pinch cam spring.

(Installation)

① Install the pinch cam spring and the pinch spring making sure that the pinch arm, the pinch slider, and the pinch lever are composed as shown in Fig. 2-25-2.

② Install the pinch roller so that the side, with the widest aluminium bushing, is on the roller cap side. Push the roller cap inside to secure the pinch roller.(Refer to Fig. 2-25-3)

Note: There are two types of pinch rollers as shown in Fig. 2-25-3. Each should be installed in the direction shown below.

(Type A)

The side on which aluminum is wider is attached the roller cap.

(Type B)

The convex portion is attached on the roller cap.

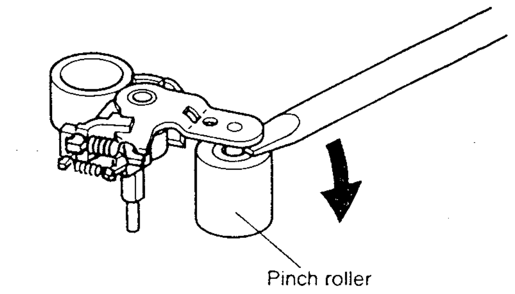

Pinch roller

Fig. 2-25-1

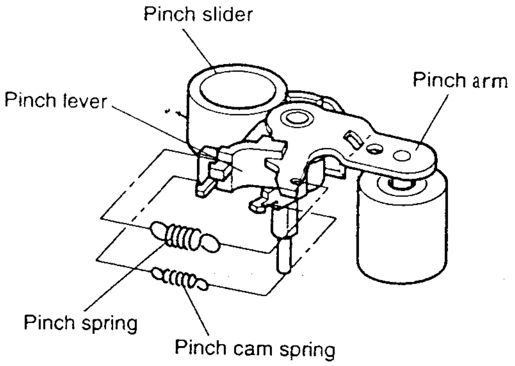

Pinch slider
Pinch lever
Pinch arm
Pinch spring
Pinch cam spring

Fig. 2-25-2

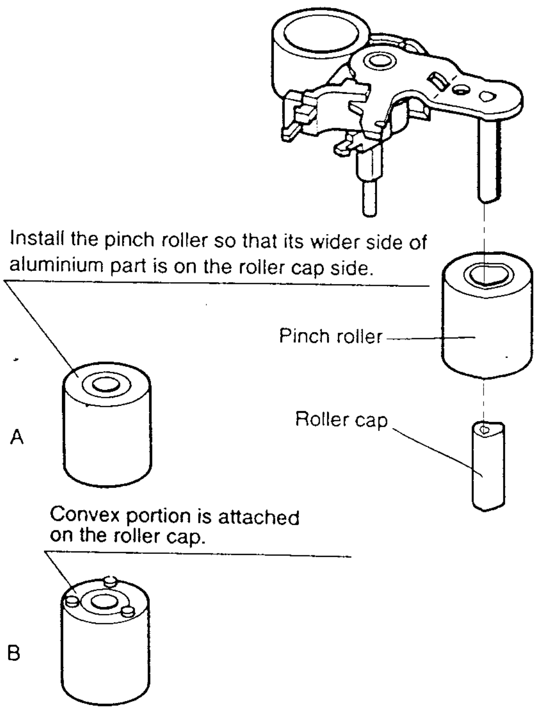

Install the pinch roller so that its wider side of aluminium part is on the roller cap side.
Pinch roller
Roller cap
A
Convex portion is attached on the roller cap.
B

Fig. 2-25-3

2-26 Mode Switch

(Removal)

① Remove the pinch cam cap, the pinch roller arm assembly, the pinch cam, and the takeup guide gear. (Refer to Para. 2-24 for the removal method.)

② Unsolder the five soldered terminals connecting the PCB-HEAD-AMP to the mode switch. (Refer to Fig. 2-26-1).

③ Unfasten two catches holding the mode switch. (Refer to Fig. 2-26-2.)

④ Slowly remove the mode switch, making sure that it is completely unsoldered.

(Installation)

① Insert the five pins and the boss of the mode switch shown in Fig. 2-26-1 into the matching holes of the PCB-HEAD-AMP. Place the mode switch on the main plate so that the matching mark of the gear pinch aligns with that of the mode switch and fasten it with the catches as shown in Fig. 2-26-3. (Also make sure that the matching mark of the gear joint aligns with that of the gear pinch.)

② Install the takeup guide gear, the pinch cam, the pinch roller arm assembly, and the pinch cam cap. (Refer to Para. 2-24 for the installation method.)

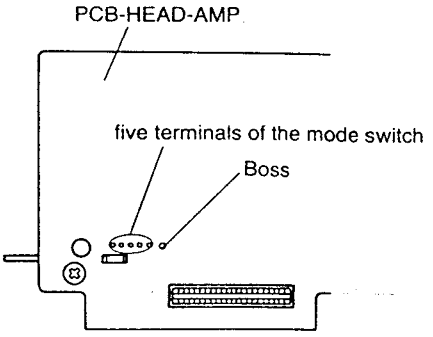

PCB-HEAD-AMP
five terminals of the mode switch
Boss

Fig. 2-26-1

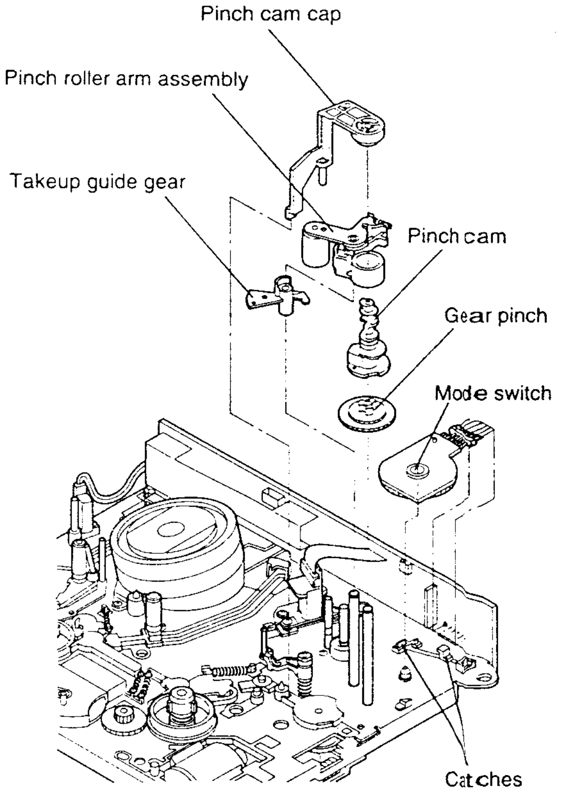

Pinch cam cap
Pinch roller arm assembly
Takeup guide gear
Pinch cam
Gear pinch
Mode switch
Catches

Fig. 2-26-2

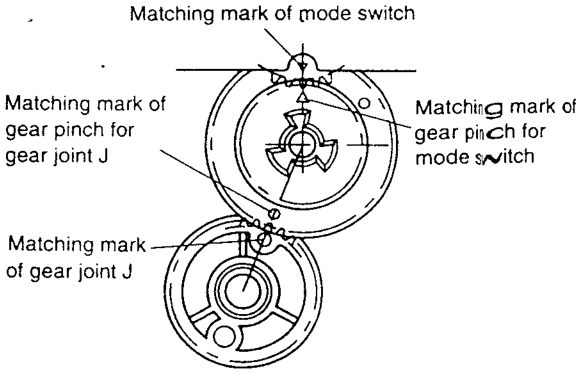

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 2-26-3

2-27 FE Head (Refer to Fig. 2-27-1.)

(Removal)

① Disconnect the lead connector, connected to the FE head.

② Remove the screw(ⓐ) to remove the FE head.

(Installation)

① Secure the FE head with the screw(ⓐ) and connect the lead connector to the FE head. (Route the lead connector, which is fastened with the catch as shown in Fig. 2-27-1, through the hook of the main plate.)

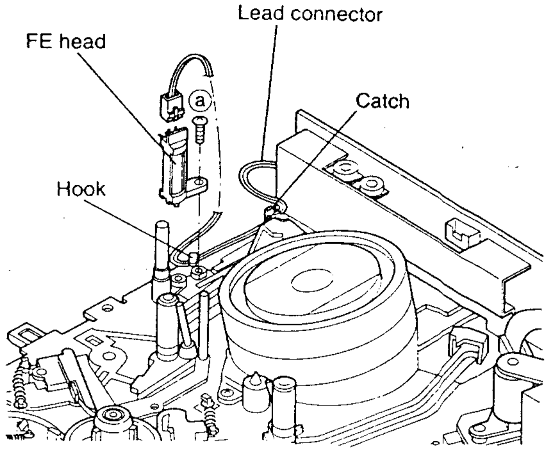


Fig. 2-27-1

2-28 Reel Belt and Belt Pulley

(Removal)

① Unfasten the reel belt from the capstan motor and the belt pulley.

② Release the belt pulley as shown in Fig. 2-28-1 and raise the belt pulley upward to remove it.

(Installation)

Note: When installing the reel belt, make sure it is clean and free of grease.(Clean with dry gauze only)

① Fasten the belt pulley to the shaft.(When fixing the belt pulley to the shaft of the idler assembly, make sure that the three convex parts of the washer fixed to the shaft enter the matching dents.

② Secure the belt pulley with the new cut washer.

③ Install the reel belt on the capstan motor and the belt pulley, taking care that the belt is not twisted.

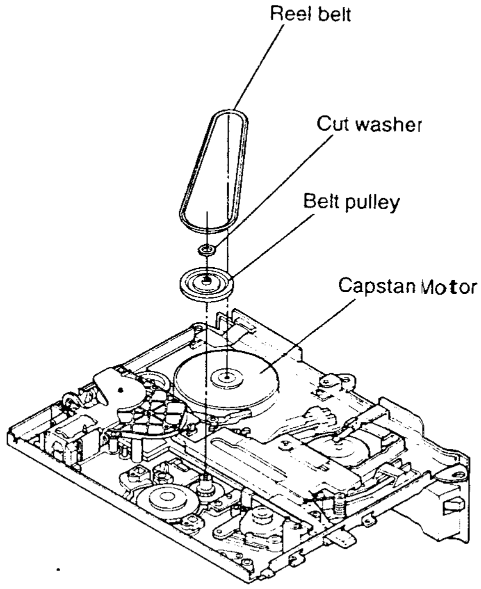


Fig. 2-28-1

2-29 Loading Motor Assembly, Pulley Worm J, Loading Motor Belt, and Gear A

(Removal)

① Unfasten the reel belt. (Refer to Para. 2-28 for the removal method.)

② Remove the three screws(ⓐ,ⓑ and ⓒ) as shown in Fig. 2-29-2 and unfasten the three catches to remove the loading motor assembly (which holds the motor holder). (Refer to Fig. 2-29-1)

③ Remove the loading motor belt from the motor pulley. (Refer to Fig. 2-29-3.)

④ Unfasten the catches holding the motor holder to remove the loading motor assembly.
(Refer to Fig. 2-29-3.)

⑤ Remove the pulley worm J, first the end attached to the part A shown in Fig. 2-29-3 and then the other end.

⑥ Remove the cut washer and unfasten the catch holding Gear A. Remove Gear A.

⑦ Pull the motor pulley to remove it from the loading motor.

⑧ Disconnect the wires from the loading motor.

(Installation)

① Solder the leads to the loading motor.(Red lead wire to the positive terminal and white lead wire to the negative terminal.)

② Install the motor pulley on the loading motor so that the space between the loading motor and the outer edge of the motor pulley is 8.5±0.1mm. (Refer to Fig. 2-29-4)

③ Install the loading motor assembly so that the label on it faces part B, shown in Fig. 2-29-3.

④ Apply grease (G)[859D055050] to the areas shown in Fig. 2-29-4 of the new pulley worm J. Install the pulley worm J, first the end attached to the part C shown in Fig.2-29-3 and then the other end.

⑤ Fix the gear A to the shaft of the motor holder J and secure it with new cut washers.

⑥ Lift the end attached to the part A shown in Fig. 2-29-3 of the pulley worm J. Fasten the loading motor belt on the pulley worm J and the motor pulley, taking care not to twist the belt.

⑦ Install the loading motor assembly(which holds the motor holder) in the position shown in Fig. 2-29-2 and secure it with the three screws(ⓐ,ⓑ and ⓒ).

⑧ Install the loading motor belt. (Refer to Para. 2-28 for the installation method.)

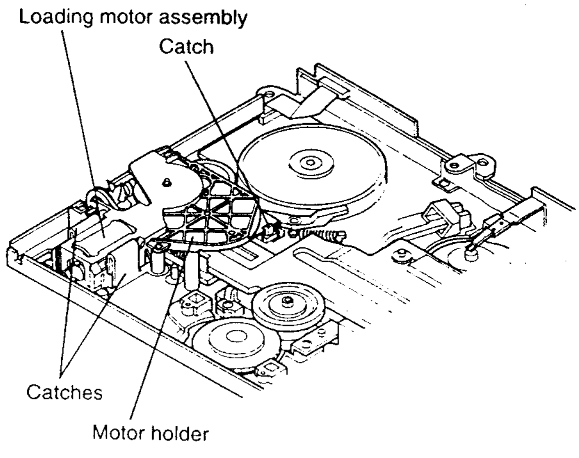

Loading motor assembly
Catch
Catches
Motor holder

Fig. 2-29-1

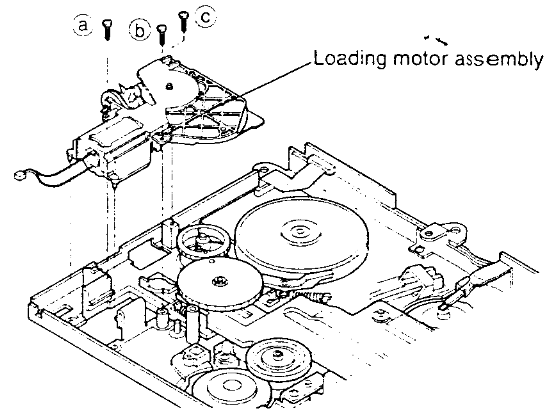

ⓐ
ⓑ
ⓒ
Loading motor assembly

Fig. 2-29-2

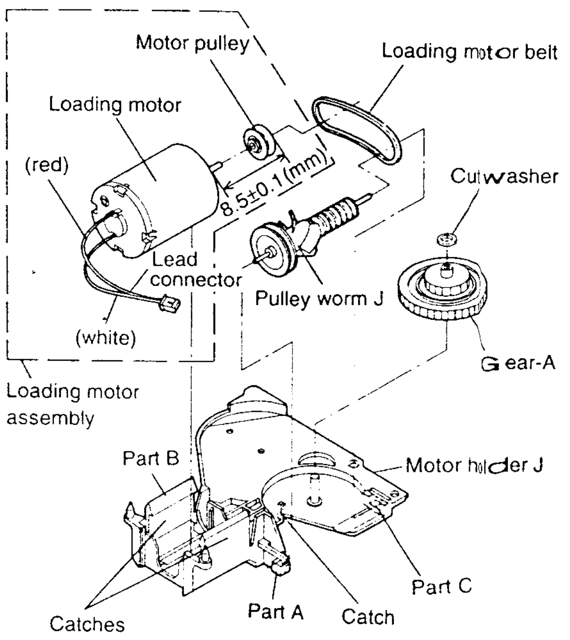

Motor pulley
Loading motor belt
Loading motor
(red)
8.5±0.1(mm)
Cutwasher
Lead connector
Pulley worm J
(white)
Gear-A
Loading motor assembly
Part B
Motor holder J
Part C
Catches
Part A
Catch

Fig. 2-29-3

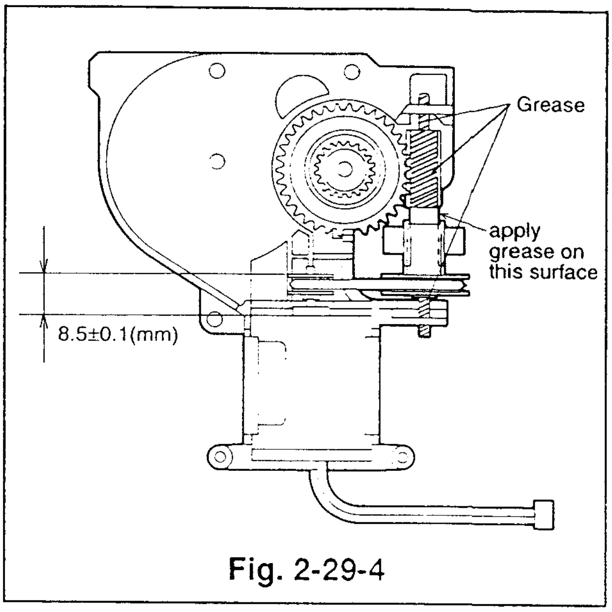


Fig. 2-29-4

2-30 Main Gear J

(Removal)

① Remove the reel belt. (Refer to Para. 2-28 for the removal method.)

② Remove the loading motor assembly (which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

③ Remove the cut washer mounted on the main gear J.

④ Raise the main gear J upward to remove it.

(Installation)

① Apply grease(G)[859D055050] to the outside cogs, the groove of the cam and to the inside small cogs of the new main gear J. (Refer to Fig. 2-30-2.)

② Make sure that the cam plate B is set to the right side, viewed from the bottom side of the deck. (Eject mode)

③ Push the axis of the main brak (TU) in the direction shown by the arrow until the main brake release lever moves freely. Turn the deck the right side up and shift the axis of the main brake release lever in the direction shown by the arrow. Then fix the main gear J to the shaft, with the axis of the main brake release lever held in place. Secure the main plate J with the cut washer. (Refer to Fig. 2-30-3) (Insert the pin of the capstan brake in the outside groove of the main gear J and align the matching marks of gear joint J and the main gear J.)(Refer to Fig. 2-30-4)

④ Install the loading motor assembly (which holds the motor holder) and the reel belt. (Refer to Para. 2-28 for the installation method.)

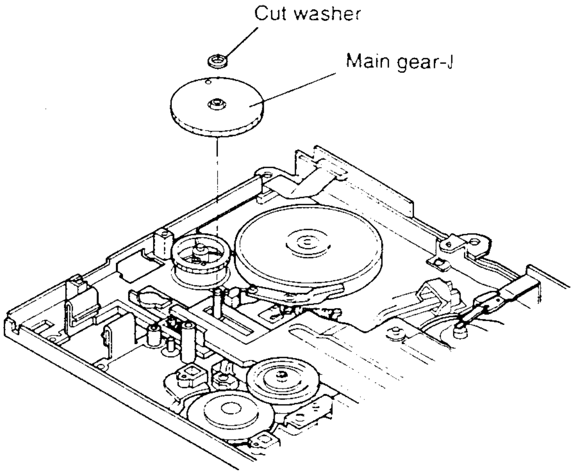


Fig. 2-30-1

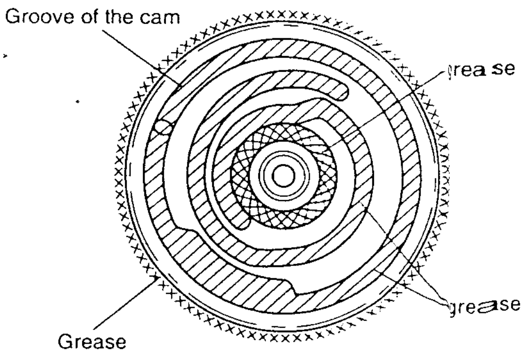


Fig. 2-30-2

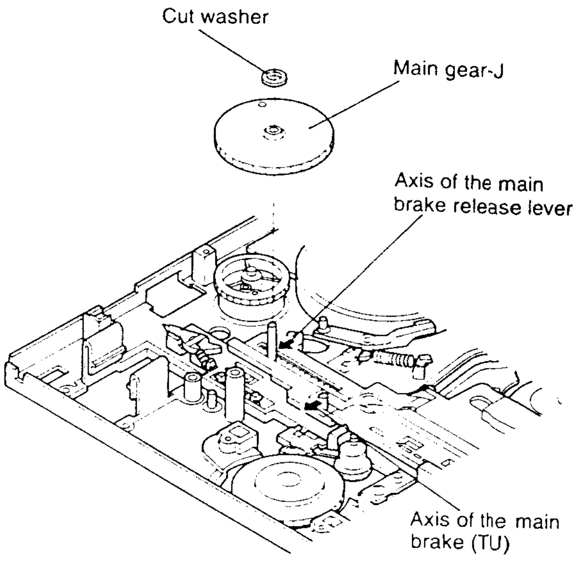

Cut washer
Main gear-J
Axis of the main brake release lever
Axis of the main brake (TU)

Fig. 2-30-3

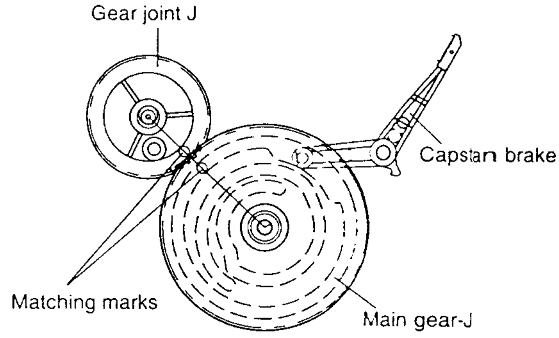

Gear joint J
Capstan brake
Matching marks
Main gear-J

Fig. 2-30-4

2-31 Gear Joint J

(Removal)

① Remove the reel belt. (Refer to Para. 2-28 for the removal method.)

② Remove the loading motor assembly (which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

③ Raise the gear joint J upward to remove it. (Refer to Fig. 2-31-1)

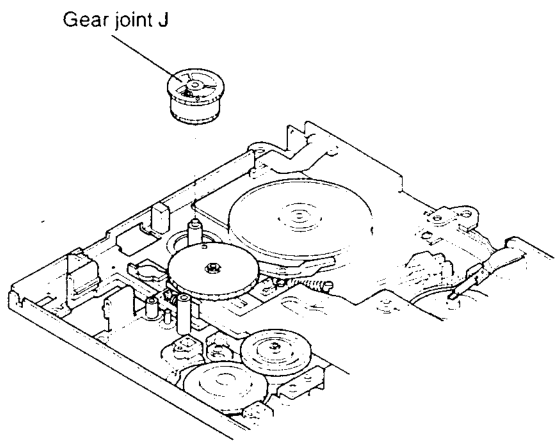

Gear joint J

Fig. 2-31-1

(Installation)

① Apply grease (PG-641)[859D055030] to the new gear joint J on the whole circumference of the small cogwheel as shown in Fig. 2-31-2.

② Fix the gear joint J to the shaft so that the matching mark of the gear joint J aligns with that of the main gear as shown in Fig. 2-30-4.

③ Turn the deck the right side up, make sure that the matching mark of the gear pinch aligns with that of the gear joint J. (When turning the deck, hold the gear joint J, in place.)(Refer to Fig. 2-31-3)

④ Install the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the installation method.)

⑤ Install the reel belt. (Refer to Para. 2-28 for the installation method.)

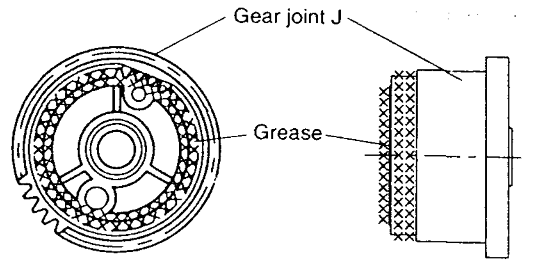

Gear joint J
Grease

Fig. 2-31-2

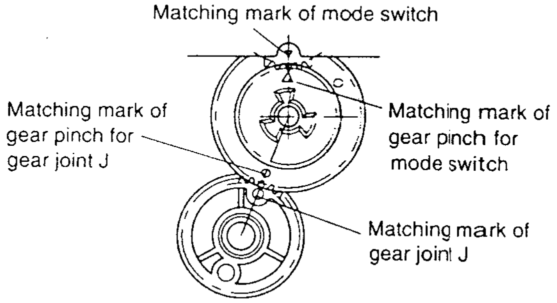

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 2-31-3

2-32 Capstan Brake and Capstan Brake Spring

(Removal)

① Remove the reel belt. (Refer to Para. 2-28 for the removal method.)

② Remove the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

③ Remove the main gear J. (Refer to Para. 2-30 for the removal method.)

④ Raise the capstan brake upward to remove it along with the capstan brake spring. (Refer to Fig. 2-32-1.)

(Installation)

① Install the capstan brake and the capstan brake spring.

② Install the main gear J. (Refer to Para. 2-30 for the installation method.)

③ Install the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the installation method.)

④ Fasten the reel belt. (Refer to Para. 2-28 for the installation method.)

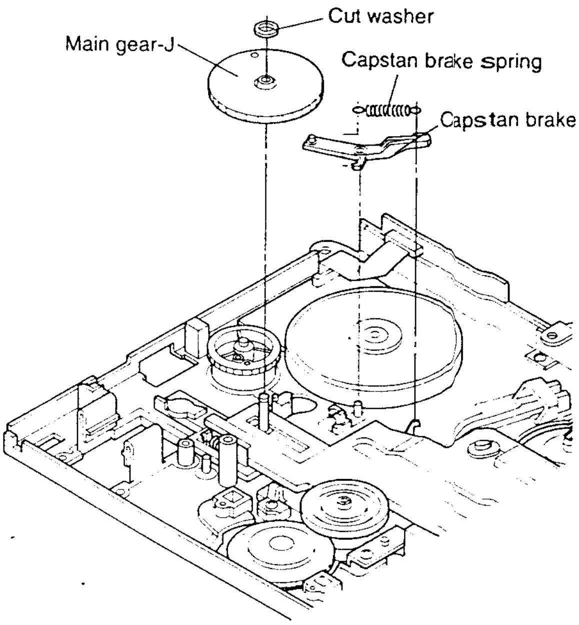

Cut washer
Main gear-J
Capstan brake spring
Capstan brake

Fig. 2-32-1

2-33 Plate J, Roller B, and Cam Plate B

(Removal)

① Remove the two screws(ⓐ and ⓑ) to remove the plate J. (Fig. 2-33-1)

② Take off the cut washer fixed to the shaft of the loading arm (TU) to remove the roller B.

③ Remove the reel belt. (Refer to Para. 2-28 for the removal method.)

④ Remove the belt pulley. (Refer to Para. 2-28 for the removal method.)

⑤ Remove the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

⑥ Remove the main gear J. (Refer to Para. 2-30 for the removal method.)

⑦ Slide the cam plate B to the left (the direction shown by the arrow) to remove it.

(Installation)

① Apply grease(G)[859D055050] to the area shown in Fig. 2-33-2 of the new cam plate B.

② Align the loading arms TU and SP so that the matching marks of the cogs align.(Refer to Fig. 2-37-3)

③ Passing part A of the cam plate B under cam spring B insert it into the hole on the side of the main plate, as shown by the continuous line.(Refer to Fig. 2-33-1)

④ While keeping the rear section of cam plate B raised, align the cam plate B and the cam gear R so that the ○ marks align with each other as shown in Fig.2-33-3(Fig. A). Still keeping the rear of cam plate B raised, slide it to the right until the △ marks on cam plate B and cam gear R align, refer Fig. 2-33-3(Fig. B). From this position lower the rear of the cam plate B unto the already aligned loading gears TU and SP, refer 2above. Shift the sub off lever and the main brake TU in the directions shown by the arrows to install them. (Refer to Fig. 2-33-1)

⑤ Fix the roller B to the shaft of the loading arm(TU) and secure it with the new cut washer.

⑥ Install the plate J and secure it with the two screws (ⓐ and ⓑ).

⑦ Install the main gear J. (Refer to Para. 2-30 for the installation method.)

⑧ Install the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the installation method.)

⑨ Install the belt pulley. (Refer to Para. 2-28 for the installation method.)

⑩ Fasten the reel belt. (Refer to Para. 2-28 for the installation method.)

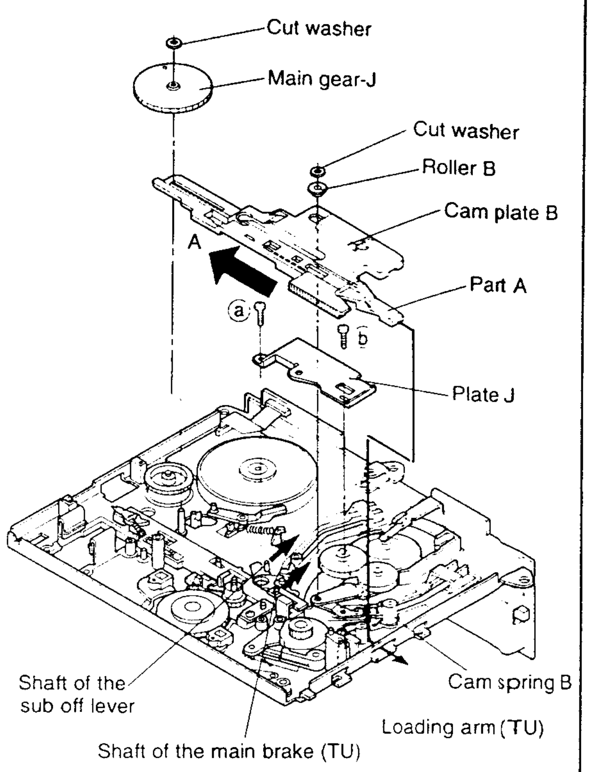

Cut washer
Main gear-J
Cut washer
Roller B
Cam plate B
A
Part A
ⓐ
ⓑ
Plate J
Shaft of the sub off lever
Cam spring B
Loading arm (TU)
Shaft of the main brake (TU)

Fig. 2-33-1

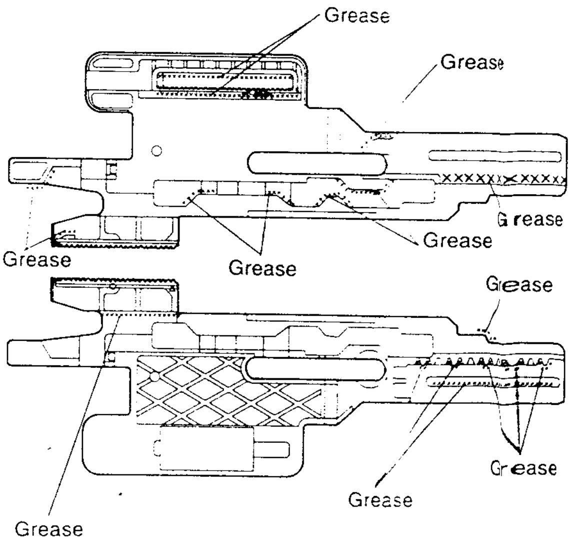

Grease
Grease
Grease
Grease
Grease
Grease
Grease
Grease
Grease
Grease

Fig. 2-33-2

2-34 Cam Gear R, Charge Lever, and Tension Off Lever

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the installation method.)
② Turn the deck the right side up and detach the tension spring. (Refer to Fig. 2-34-4.)
③ Remove the charge assembly. (Refer to item ② of Para.2-18 for the removal method.)
④ Remove the reel belt and the pulley belt. (Refer to Para. 2-28 for the removal method.)
⑤ Remove the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the removal method.)
⑥ Remove the main gear J. (Refer to Para. 2-30 for the removal method.)
⑦ Remove the plate J, the roller B, and the cam plate B. (Refer to Para. 2-33 for the removal method.)
⑧ Raise the cam gear R upward to remove it. (Refer to Fig. 2-34-1.)
⑨ Remove the charge lever. (Refer to Fig. 2-34-1.)
⑩ Remove the tension off lever. (Refer to Fig. 2-34-1.)

(Installation)

① Let part A pass through part B shown in Fig. 2-34-1 to install the tension off lever.
② Fix the charge lever to the shaft.
③ Apply grease(PG-641)[859D055030] to the area shown in Fig. 2-34-2 of the new cam gear R. (The groove and the flank of the outside circumference.)
④ Insert the cam gear R so that ○ mark is on the upside, with the charge lever set fully to the right end. Slowly turn the charge lever in the direction shown by the arrow until it enters the groove in the cam gear R. (Refer to Fig. 2-34-3)
⑤ Install the cam plate B, the roller B, and the plate J. (Refer to Para. 2-33 for the installation method.)
⑥ Install the main gear J. (Refer to Para. 2-30 for the installation method.)
⑦ Install the loading motor assembly (which holds the motor holder). (Refer to Para. 2-29 for the installation method.)
⑧ Install the belt pulley and the reel belt. (Refer to Para. 2-28 for the installation method.)
⑨ Hook the tension spring in the position shown in Fig. 2-34-4.
⑩ Install the charge assembly. (Refer to Item ⑤ of Para. 2-18 for the installation method.)
⑪ Install the cassette housing. (Refer to Para. 2-1 about the installation method.)

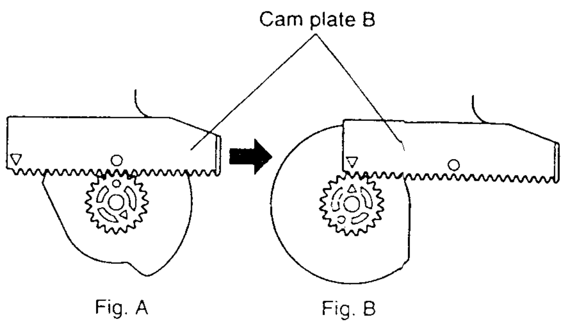


Fig. A Fig. B

Fig. 2-33-3

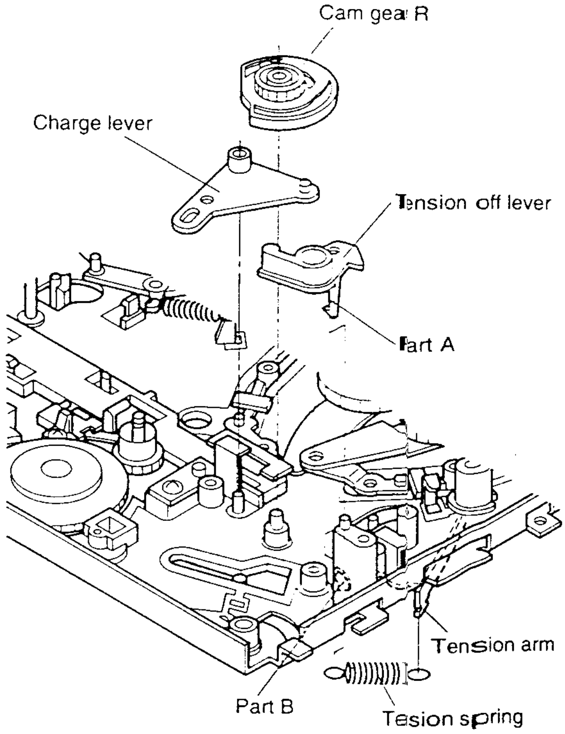


Fig. 2-34-1

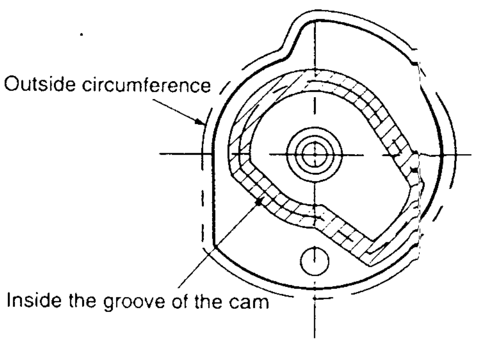


Fig. 2-34-2

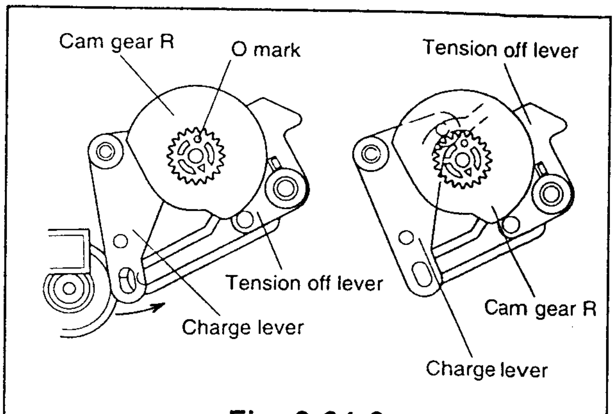

Cam gear R
O mark
Tension off lever
Tension off lever
Charge lever
Cam gear R
Charge lever

Fig. 2-34-3

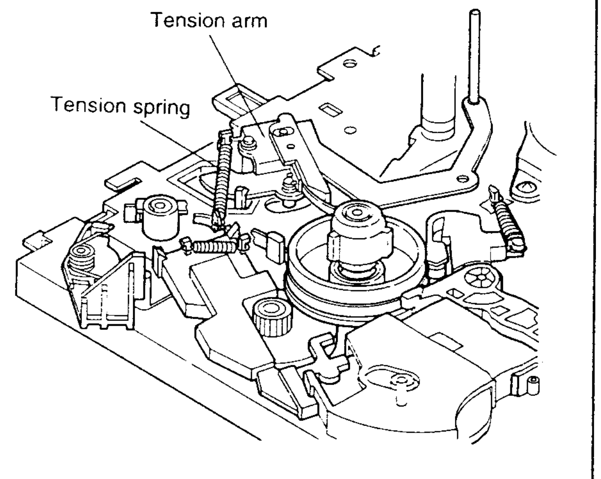

Tension arm
Tension spring

Fig. 2-34-4

2-35 Reel Idler Assembly

(Removal)

① Remove the reel belt and the belt pulley. (Refer to Para. 2-28 for the removal method.)

② Remove the two screws(ⓐ and ⓑ) holding the reel idler assembly.

③ Unfasten the two catches shown in Fig. 2-35-2 and push the reel idler assembly to remove it, with the deck right side up.

(Installation)

① Insert the part B of the reel idler assembly under the plate cam B as shown in Fig. 2-35-1 and insure projection A enters the hole on the main plate. Position the reel idler assembly so that its screw holes are aligned and secure it with the two screws(ⓐ and ⓑ). (Fig. 2-35-3 shows its appearance, viewing from the top.)

② Install the belt pulley and the reel belt. (Refer to Para. 2-28 for the installation method.)

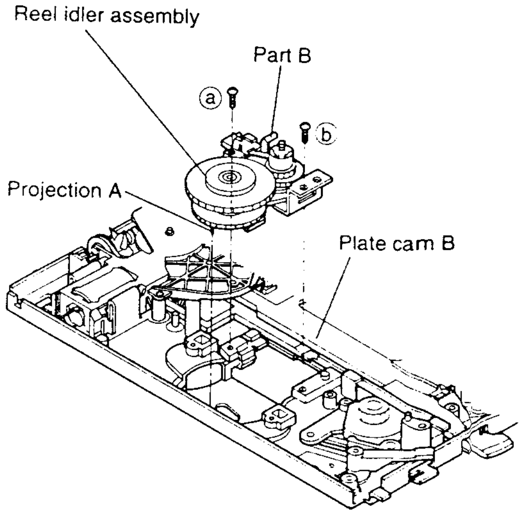

Reel idler assembly
Part B
ⓐ
ⓑ
Projection A
Plate cam B

Fig. 2-35-1

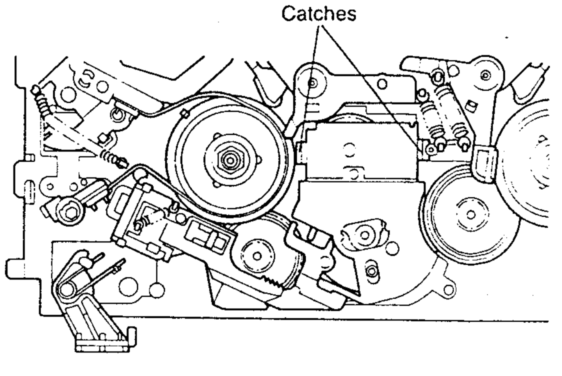


Fig. 2-35-2

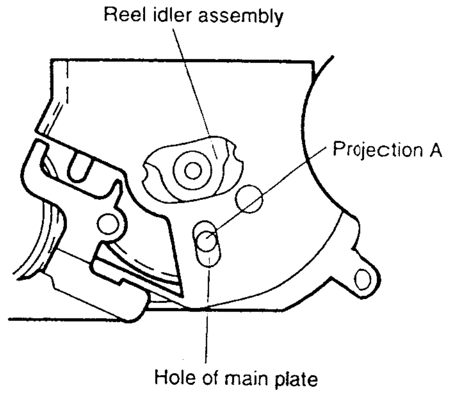

Reel idler assembly
Projection A
Hole of main plate

Fig. 2-35-3

2-36 Cam Plate C and Cam Spring C

(Removal)

① Remove the reel belt and the belt pulley. (Refer to Para. 2-28 for the removal method.)
② Remove the reel idler assembly. (Refer to Para. 2-35 for the removal method.)
③ Remove the loading motor assembly (which holds the motor holder). (Refer to Para. 2-29 for the removal method.)
④ Remove the main gear-J. (Refer to Para. 2-30 for the removal method.)
⑤ Remove the plate-J, the roller-B, and the cam plate-B. (Refer to Para. 2-33 for the removal method.)
⑥ Remove the cam spring-C. (Refer to Fig. 2-36-1.)
⑦ Slide the cam plate-C to the left end.
⑧ Unfasten the catch and raise the cam plate-C to remove it. (refer to Fig. 2-36-1.)

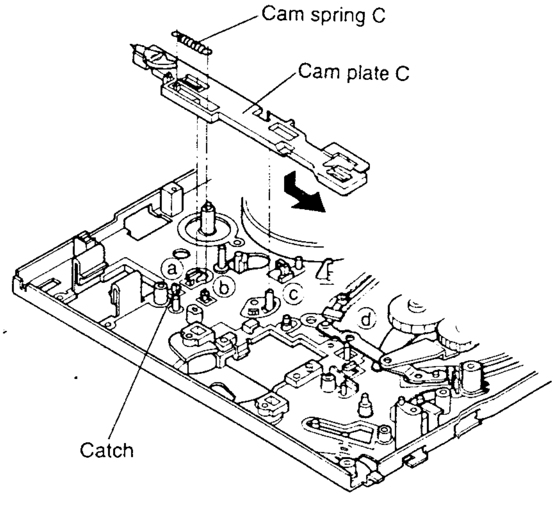

Cam spring C
Cam plate C
a
b
c
d
Catch

Fig. 2-36-1

(Installation)

① Apply grease(PG-641)[859D055030] to the area shown in Fig. 2-36-2 of the new cam plate-C.

② Position the cam plate-C so that the four points(ⓐ,ⓑ, ⓒ and ⓓ) shown in Fig. 2-36-1 enter into the matching holes and slide it to the right end.

③ Install the cam spring-C.

④ Install the cam plate-B, the roller-B, and the plate-J. (Refer to Para. 2-33 for the installation method.)

⑤ Install the main gear-J. (Refer to Para. 2-30 for the installation method.)

⑥ Install the loading motor assembly(which holds the motor holder). (Refer to Para. 2-35 for the installation method.)

⑦ Install the reel idler assembly. (Refer to Para. 2-35 for the installation method.)

⑧ Install the belt pulley and the reel belt. (Refer to Para. 2-28 for the installation method.)

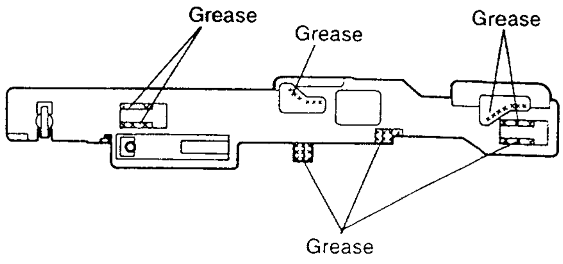


Fig. 2-36-2

2-37 Loading Arm(SP, TU)

(Removal)

① Remove the reel belt and the belt pulley. (Refer to Para. 2-28 for the removal method.)

② Remove the loading motor assembly(which holds the motor holder). (Refer to Para. 2-29 for the removal method.)

③ Remove the main gear-J. (Refer to Para. 2-30 for the removal method.)

④ Remove the plate-J, the roller-B, and the cam plate-B. (Refer to Para. 2-33 for the removal method.)

⑤ Raise the loading arms upward, first SP and then TU, to remove them.(Refer to Fig. 2-37-1)

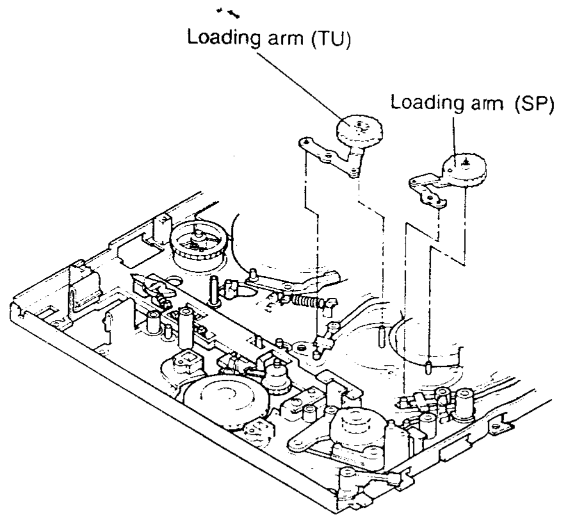


Fig. 2-37-1

(Installation)

① Move the takeup and supply tape guides to the unloaded position. If the supply tape guide is in the loaded position it will be necessary to shift the tension arm in the direction of the arrow in Fig. 2-37-2 at the same time moving the supply tape guide to the unloading position.

② Place the new loading arm(TU) in the position shown in Fig. 2-37-1, then place the loading arm(SP) in the position shown in Fig. 2-37-1 at the same time aligning the marks on the cogs, refer Fig. 2-37-3(shaded area).

③ Apply grease(G)[859D055050] to the area, which touches the cogwheel of the loading arm(TU) when the loading arms(SP and TU) are shifted fully to the loading direction, and grease(G)[859D055050] to the gear portion which gears with the plate cam B. (Refer to Fig.2-37-4.)

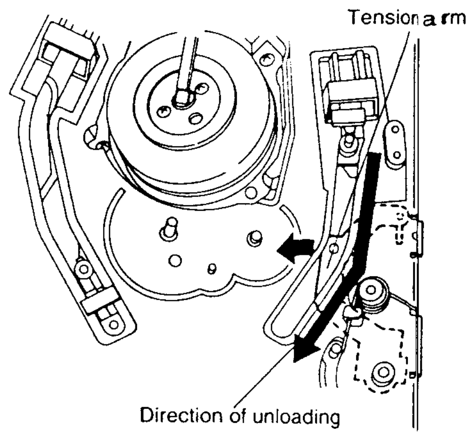


Fig. 2-37-2

④ Install the cam plate-B, the roller-B, and the plate-J. (Refer to Para. 2-33 for the installation method.)

⑤ Install the main gear-J.(Refer to Para. 2-30 for the installation method)

⑥ Install the loading motor assembly (which holds the motor holder). (Refer to Para. 2-29 for the installation method.)

⑦ Install the belt pulley and the reel belt. (Refer to Para. 2-28 for the installation method.)

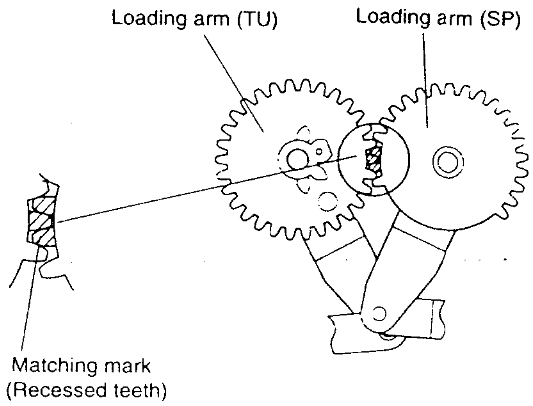

Loading arm (TU)
Loading arm (SP)
Matching mark
(Recessed teeth)

Fig. 2-37-3

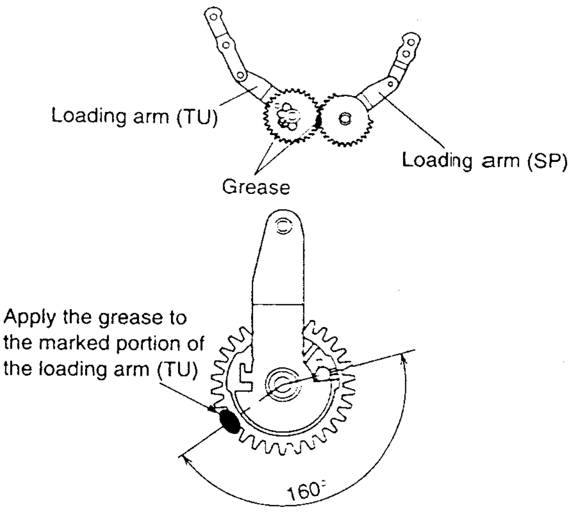

Loading arm (TU)
Loading arm (SP)
Grease
Apply the grease to the marked portion of the loading arm (TU)
160°

Fig. 2-37-4

2-38 Capstan Motor and Lead Card

Note: During removal and installation of the capstan motor, take care not to touch or score the tape running surface, and insure there is no grease on the outside of the rotor's rim.

(Removal)

① Unfasten the reel belt.

② Disconnect the lead card, connected to the PCB of the capstan motor and the PCB-HEAD-AMP. (Refer to Fig. 2-38-1.)

③ Turn the deck the right side up, remove the three screws shown in Fig. 2-38-2 to remove the capstan motor.

Note: During removal, support the capstan motor assembly when it is not secured by its fastening screws. Take care not to touch other parts.

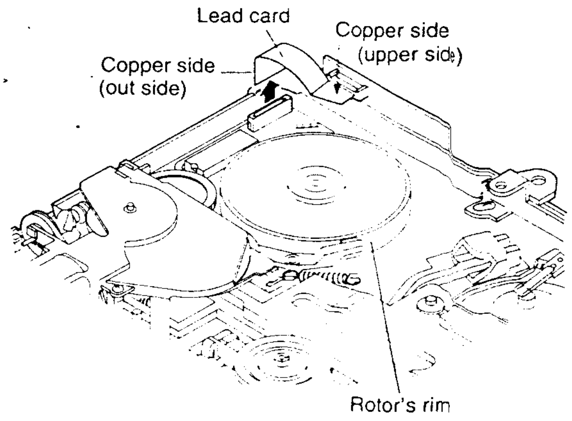

Lead card
Copper side
(upper side)
Copper side
(out side)
Rotor's rim

Fig. 2-38-1

(Installation)

① Reverse the deck, position the capstan motor so that the capstan brake is on the outside of the capstan motor.

② Turn the deck the right side up, secure the capstan motor with the three screws shown in Fig. 2-38-2.

③ Bend the new lead card as shown in Fig.2-38-3 and connect it to the connectors of the PCB of the capstan motor and the PCB-HEAD-AMP so that copper side appears as shown in Fig. 2-38-1. Take care not to touch the rotor of the capstan motor.

④ Install the reel belt.(Refer to Para. 2-28 for the installation method.)

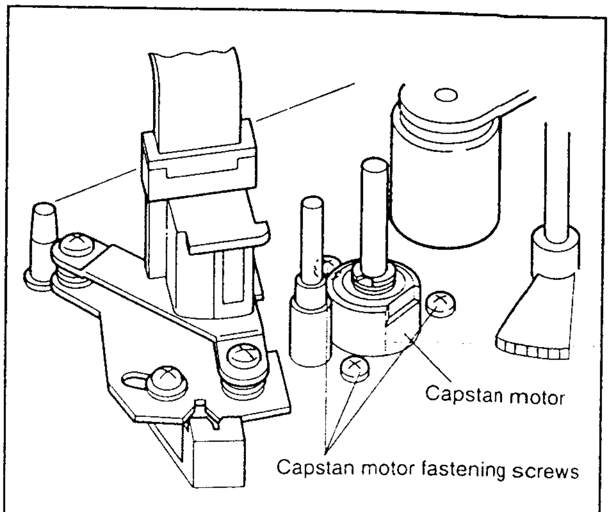

Capstan motor
Capstan motor fastening screws

Fig. 2-38-2

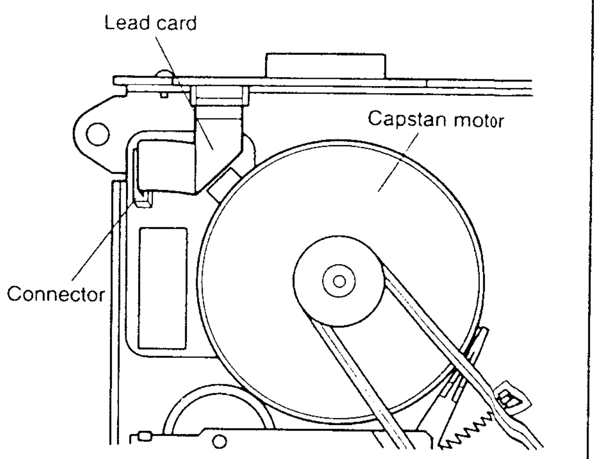

Lead card
Capstan motor
Connector

Fig. 2-38-3

2-39 A/C Head Assembly

(Removal)

Note: During installation of A/C head assembly, take care not to touch or score the tape running surface.

① Lift the stopper shown in Fig. 2-39-1 upward and disconnect the lead connector (bare wire), which is connected to the PCB-A/C-HEAD.

② Remove the two screws(ⓐ and ⓑ) holding the A/C head assembly to the main plate, and to remove the A/C head assembly. (Refer to Fig. 2-39-2.)

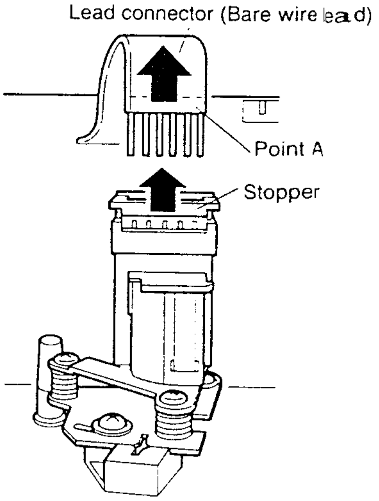

Lead connector (Bare wire lead)
Point A
Stopper

Fig. 2-39-1

(Installation)

① Make sure that the spring(A/C earth spring) is as shown in Fig. 2-39-3.

② Place the A/C head assembly in the position shown in Fig. 2-39-2 and secure it with the two screws(ⓐ and ⓑ).

③ Shift part A downward and lower the stopper. Connect the lead connector to the connector on the PCB-A/C-HEAD as shown in Fig. 2-39-1.

Note: Conduct the A/C head adjustment and the phase adjustment as outlined in Para. 3-3 and 3-4 after the new A/C head is installed.

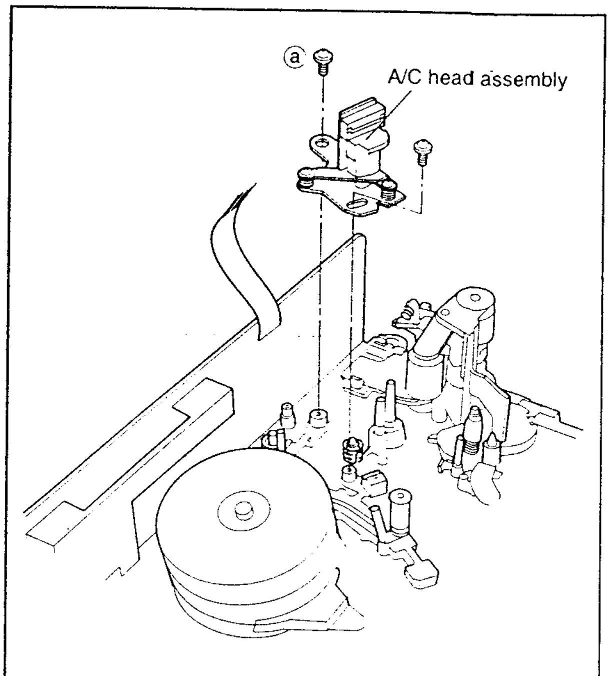


Fig. 2-39-2

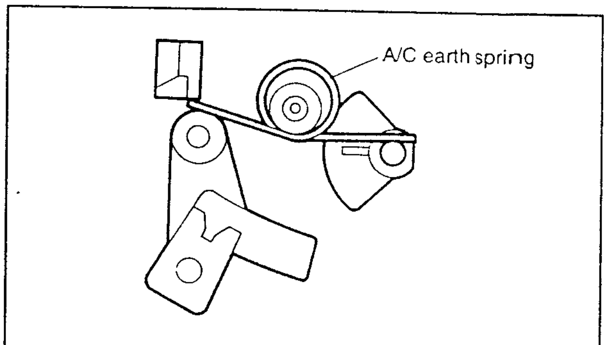


Fig. 2-39-3

2-40 A/C Head

(Removal)

① Disconnect the lead connector connected to the PCB-A/C-HEAD. (Refer to Item ① of Para. 2-39 for the removal method.)

② Remove the three screws(ⓐ, ⓑ and ⓒ), shown in Fig. 2-40-1 to remove the A/C head.

③ Unsolder the PCB-A/C HEAD from the A/C head.(Refer to Fig. 2-40-1.

(Installation)

① Install the A/C head with the A/C spring and the three screws(ⓐ,ⓑ and ⓒ) as shown in Fig. 2-40-1.

Note: When installing the A/C head on the A/C plate, the base plate of the A/C head must be parallel to the A/C plate and the spacing between them should be as specified in Fig. 2-40-2.

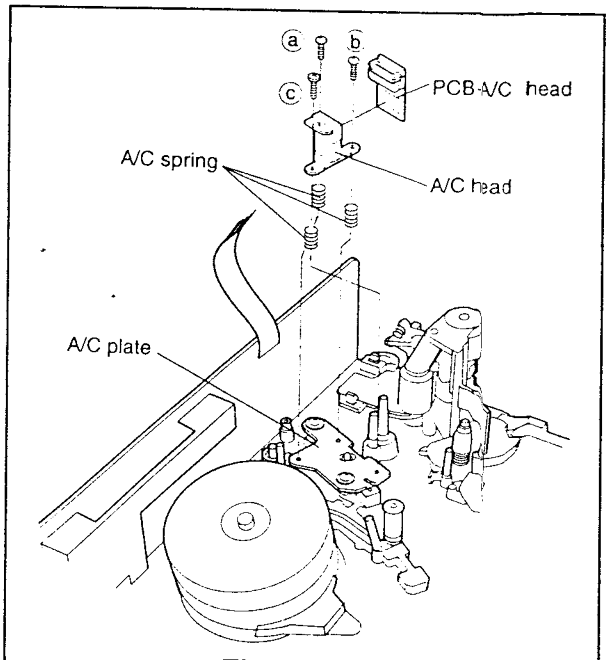


Fig. 2-40-1

② Connect the lead connector to the PCB-A/C-HEAD. (Refer to Item ③ of Para. 2-39 for the installation method.)

③ Perform the A/C head adjustment as outlined in Para. 3-3 and the phase adjustment as outlined in Para. 3-4.

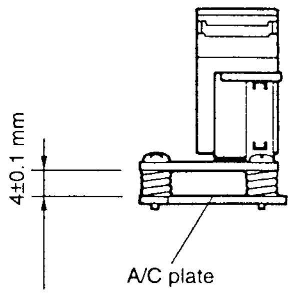


Fig. 2-40-2

2-41 Supply & Takeup Guide Rollers

(Removal)

① Loosen the set screws with a hexagon key so that the guide rollers rotate freely.

② Turn the height adjustment screws at the top of the guide rollers counterclockwise with a height adjustment screwdriver to loosen them. Lift the guide roller upward to remove them from the tape guides.(Refer to Fig. 2-41-1)

(Installation)

① Make sure that the rubber rings are fixed to the fastening thread portions of the new guide rollers.

② Perform the following steps ③ to ⑤ to seat in the rubber rings.

③ Slowly turn the guide rollers clockwise until the rubber rings are firmly seated.

④ Turn the guide rollers a further 1/6 of a turn clockwise and then turn them one turn counter-clockwise.

⑤ Slowly turn the guide rollers clockwise until they become firmly seated again. Turn the guide rollers a further 1/6 of a turn clockwise.

⑥ Secure the guide rollers lightly with the set screws. Perform the mechanism check and adjustment of the FM envelope as outlined in Para. 3-2.

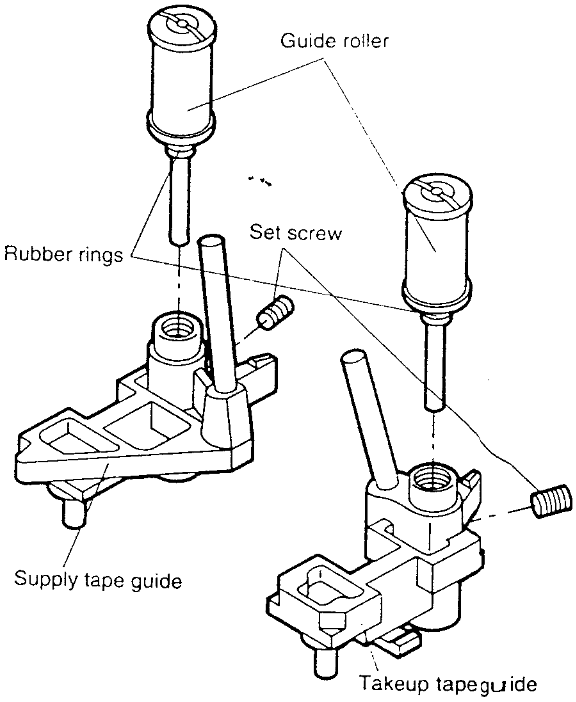


Fig. 2-41-1

2-42 Cleaning Roller, Cleaning Arm, Cleaning Lever, and Cleaning Spring

(Removal)

① Remove the PCB-HEAD-AMP. (Refer to Para. 2-8 for the removal method.)

② Unfasten the catch to remove the cleaning roller.(Refer to Fig. 2-42-1)

3③ Turn part A of the cleaning assembly clockwise as shown in Fig. 2-42-2 to release the catch part B Fig. 2-42-2 and Fig. 2-42-3(c). Release the catch part E and remove the cleaning assembly from the shaft.

④ Remove the cleaning spring to detach the cleaning arm and the cleaning lever.

(Installation)

① Attach the cleaning arm to the cleaning lever and turn it clockwise as shown in Fig. 2-42-3(c). Make sure that the cleaning arm and the cleaning lever turn without binding.

② Hook one end of the cleaning spring with the boss (point C), projecting from the cleaning arm, and the other end to point D of the cleaning lever as shown in Fig. 2-42-3(d).

③ Place the cleaning assembly in the position shown in Fig. 2-42-1, and in the direction shown in Fig. 2-42-2(b). Turn the part A, shown in Fig. 2-42-2, counterclockwise to set the part B under the A/C plate of the A/C head assembly. Make sure that the spring hooks with the boss of the main plate shown in Fig. 2-42-2. Shift the part A in the direction shown by the arrow and release to make sure that it returns.

④ Insert the cleaning roller into the position shown in Fig. 2-42-1 to install it.

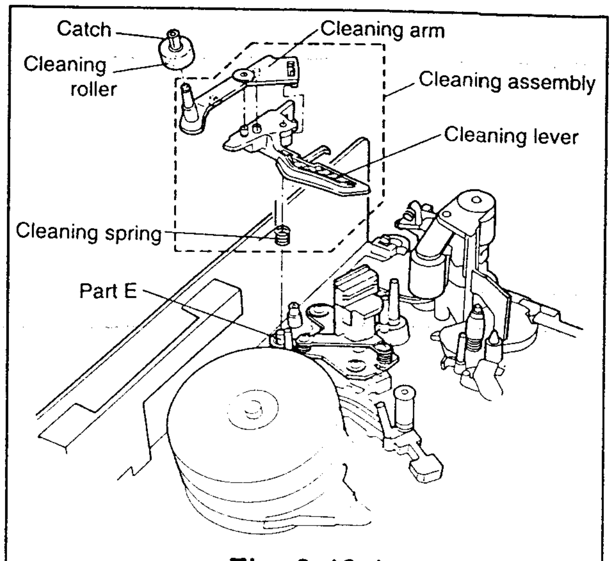

Catch
Cleaning roller
Cleaning arm
Cleaning assembly
Cleaning lever
Cleaning spring
Part E

Fig. 2-42-1

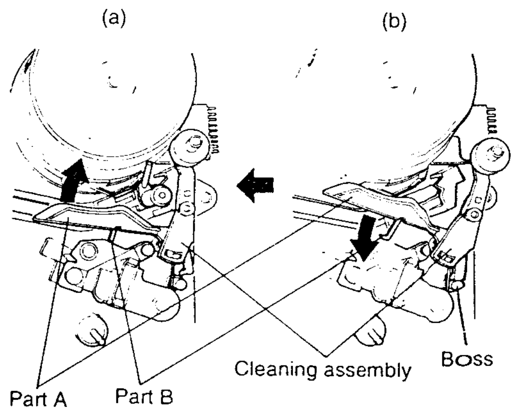

(a)
(b)
Part A
Part B
Cleaning assembly
Boss

Fig. 2-42-2

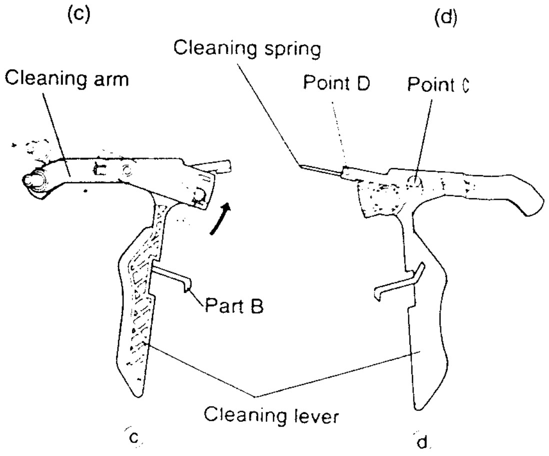

(c)
(d)
Cleaning spring
Cleaning arm
Point D
Point C
Part B
Cleaning lever
c
d

Fig. 2-42-3

2-43 Supply & Takeup Tape Guide Assemblies

(Removal)

① Remove the cassette housing. (Refer to Para. 2-1 for the removal method.)

② Remove the PCB-HEAD-AMP. (Refer to Para. 2-8 for the removal method.)

③ Remove the cleaning assembly. (Refer to item ④ of Para. 2-42 for the removal method.)

④ Unscrew the three screws(ⓐ,ⓑ and ⓒ) to remove the drum base together with the drum assembly. (Refer to Fig. 2-43-1.)

⑤ Slide the supply and takeup tape guide assemblies to the end of the loaded position by either of the following methods.

- Supply voltage (approximately 5V plus voltage on the red wire) to the loading motor as in ② of the removal method in Para. 2-19.
- Turn part A of pulley worm J by hand, in the direction shown by the arrow (a) as shown in Fig. 2-43-3. Raise the supply and takeup tape guide assemblies upward to remove them.

(Installation)

① Apply grease(PG-641)[859D055030] to the area shown in Fig. 2-43-2 of the supply tape guide assembly.

② Install the supply and takeup tape guide assemblies so that they respectively enter the holes at the ends of the loading arms(SP and TU)attached to the reverse side of the deck as shown in Fig. 2-43-1.

③ Slide the supply and takeup tape guide assemblies to the unloaded position, by either of the following methods so that the upper hole of the mode switch aligns with that of the cogwheel as shown in Fig. 2-43-4.

- Supply voltage (approximately 5V), reversing the polarity used in ④ of the removal method, to the loading motor as ⑤ of the installation method in Para. 2-19.
- Turn part A of the pulley worm J by hand, in the direction shown by the arrow (b) as shown in Fig. 2-43-3.

④ Make sure that the hole of the gear joint J aligns with the matching mark of the main plate, and the matching mark of the gear pinch with that of the mode switch as shown in Fig. 2-43-5.

⑤ Install the drum base on which the drum assembly is attached and secure it with the three screws (ⓐ,ⓑ and ⓒ) as shown in Fig. 2-43-1. (Tighten the screws in the order ⓐ→ⓑ→ⓒ.)

⑥ Install the cleaning assembly. (Refer to Item ③ of Para. 2-42 for the installation method.)

⑦ Install the PCB-HEAD-AMP. (Refer to Para. 2-8 for the installation method.)

⑧ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

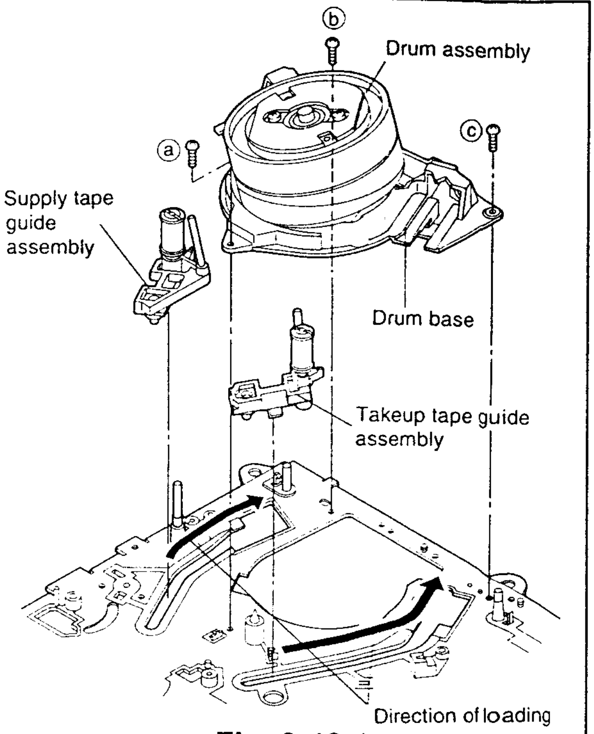


Fig. 2-43-1

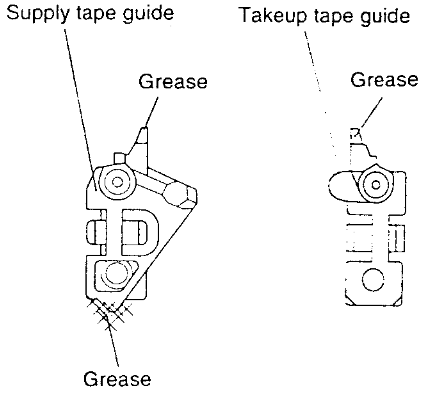


Fig. 2-43-2

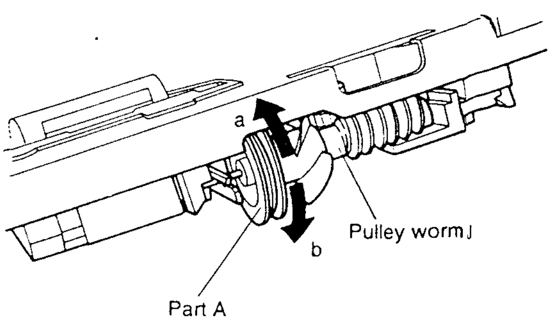


Fig. 2-43-3

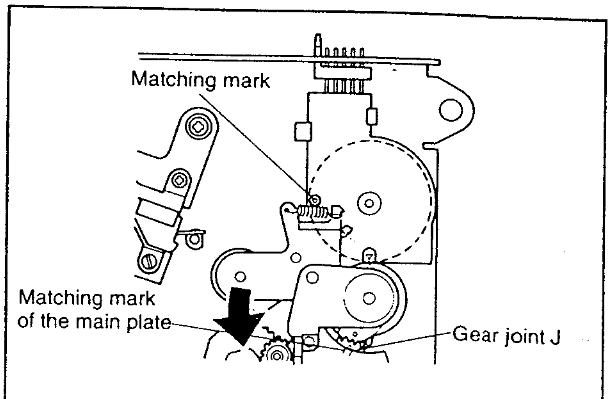

Matching mark
Matching mark of the main plate
Gear joint J

Fig. 2-43-4

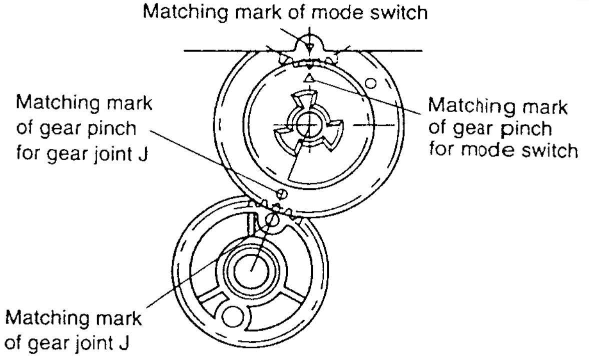

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 2-43-5

2-44 Drum base spring

(Removal)

① Remove the drum base spring between the drum base and the drum assembly. (Refer to Fig. 2-44-1.)

Note: If the drum base spring is difficult to remove, remove the drum assembly in advance. (Refer to Para.2-10)

Note: During removal and installation of the drum assembly, do not touch the tape running surface with your hands.

(Installation)

① Set the drum base spring in the gap between the drum base and the drum assembly. Make sure that the drum base spring is secure enough not to fall out.

② Apply grease(PG-641)[859D055O30] to the area of the drum base spring as shown in Fig. 2-44-1.

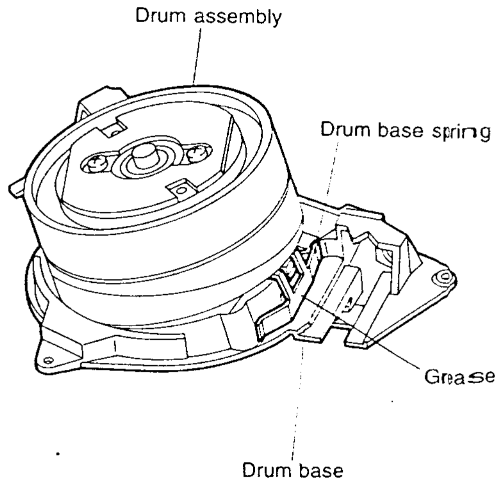

Drum assembly
Drum base spring
Grease
Drum base

Fig. 2-44-1

3. Interchangeability Adjustment of Mechanism

Note1: Tracking must be preset during the interchangeability adjustment of the mechanism. Digital tracking should be preset by short circuiting TP5A and TP5B on the PCB-MAIN.

Note2: The adjustment is performed in the playback mode, using the stair step signal of an alignment tape, connect an oscilloscope to TP2A and external Trig. From TP2H, unless otherwise specified.

3-1 Adjustment of Back-Tension and Tension Pole Position

Run a blank tape for several minutes to break in the reel disks and the transport before making the adjustment.

① Cut out the alignment tape [PM6KH3 : 859C339030] as shown in Fig. 3-1-2 this allows the boss to be adjusted while playing the tape by inserting the hexagon wrench through the round hole of the cassette housing shown in Fig. 3-1-1. (Take care not to let fragments of the cassette inside the cassette tape.)

② Playback an alignment tape which has a cut out.

③ Make sure that tip section A of the tension arm is between the divisions " 2 " and " 2.5 " on the main plate. (The divisions are numbered from the right to left.)

④ If tip section A of the tension arm is on the right of " 2 ", turn the boss clockwise. If A is on the left of " 2.5 ", turn it counter-clockwise.

⑤ Insert the back tension measuring jig(Part No. 859C346060) and set the VCR to the playback mode.

⑥ When the running of the tape becomes steady, make sure that the reading of the Back Tension Measuring Jig is within 50±6g-cm.

⑦ If the reading is over the specified value, replace the tension spring.

⑧ When the running of the tape is steady, check visually to make sure that the runout of the tension pole is 1mm or less.

⑨ If the runout is not within the specified value, replace the reel disk.

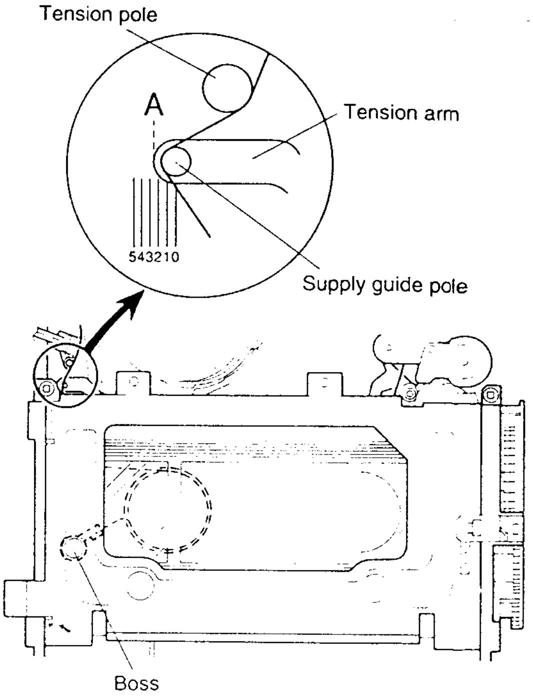


Fig. 3 - 1 - 1

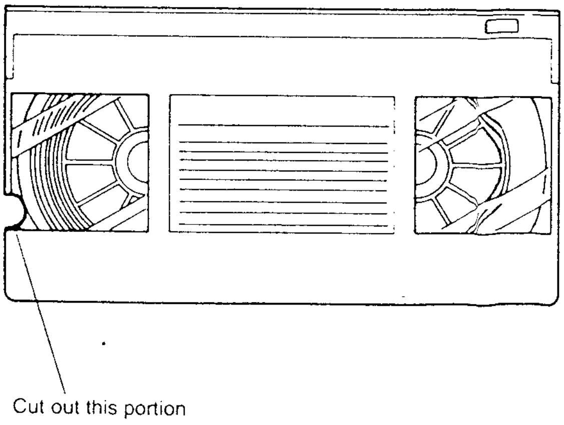


Fig. 3 - 1 - 2

3-2 Check and Adjustment of FM Envelope

3-2-1 Guide Roller Adjustment

① Play back the alignment tape.
[PM6KH3 : 859C339030]

② Preset tracking. (Refer to NOTE 1 in Para. 3.)

③ Check if the FM waveform is flat like A.
(Refer to Fig. 3-3-2)

④ Adjust the height of the supply guide roller if the leading portion (the entry side of the drum) of the FM waveform is not flat, like B or C. (Refer to Fig. 3-3-2) Adjust the height of the takeup guide roller if the trailing portion (the exit side of the drum) is not flat, like D or E.

3-2-2 Adjustment of Supply Guide Roller Height

① Loosen the set screw until the supply guide roller is held lightly when rotated.

② The supply guide roller may be low if the leading portion (the entry side of the drum) of the FM waveform is like B, and high if like C. Turn the adjusting screw at the top of the roller to adjust the height of it so that the FM waveform is flat like A.

- Turn the adjusting screw counter-clockwise if the roller is low.
- Turn the adjusting screw clockwise if the roller is high.

③ Coarsely adjust the phase as in Item 3-3-4.

3-2-3 Adjustment of Takeup Guide Roller Height

① Loosen the set screw until the takeup guide roller rotates lightly.

② The takeup guide roller may be low if the trailing portion (the exit side of the drum) of the FM waveform is like D, and high if like E. Turn the adjusting screw at the top of the roller to adjust the height so that the FM waveform is flat like A.

- Turn the adjusting screw counter-clockwise if the roller is low.
- Turn the adjusting screw clockwise if the roller is high.

③ Coarsely adjust the phase as in Item 3-2-4.

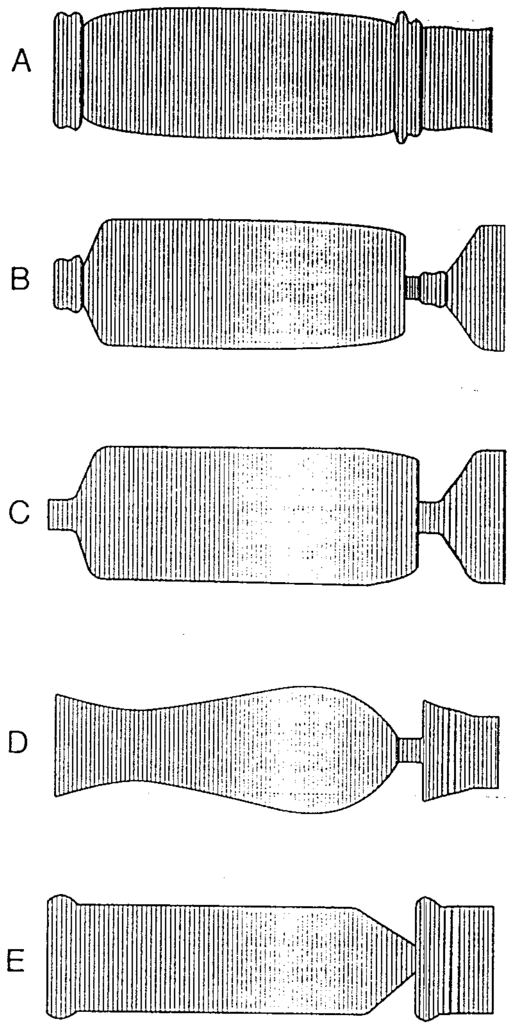


Fig. 3 - 2 - 1

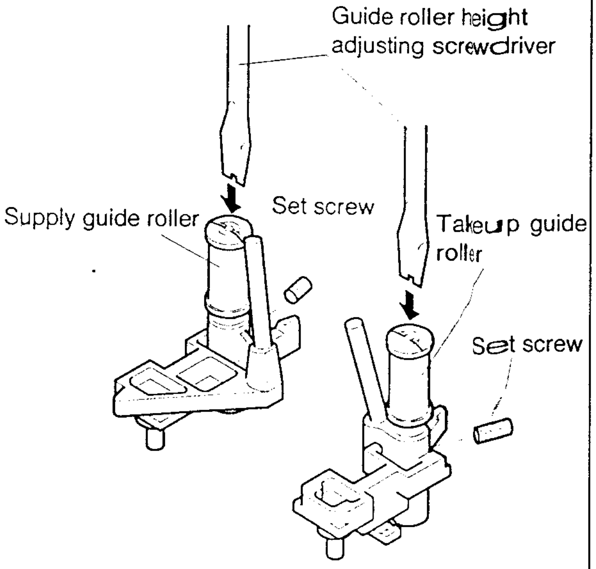


Fig. 3 - 2 - 2

3-2-4 Coarse Adjustment of Phase

① Play back the alignment tape.
[PM6KH3 : 859C339030]

② Preset tracking. (Refer to NOTE 1 in Para. 3.)

③ Check the FM waveform after checking and adjusting the guide rollers.

④ If the amplitude of the FM waveform is narrow like F because of out of phase, adjust it to maximum like G, as shown in Fig. 3-2-4 by the following procedure. Loosen the screw E , insert a screw driver into the groove at the Base A/C and the main plate, and shift the Base A/C right and left.

⑤ Tighten the screw E to secure the base-A/C in place.

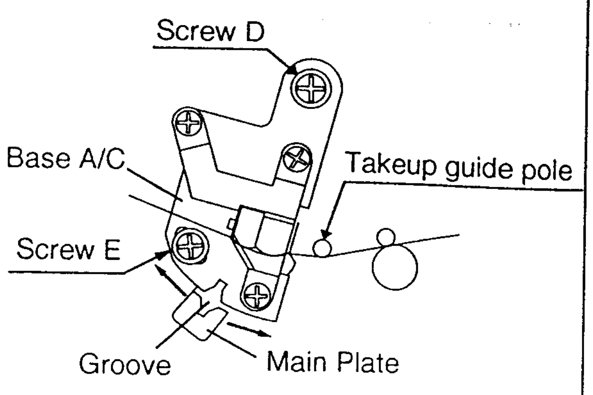


Fig. 3 - 2 - 3

3-2-5 Check of FM Waveform Flatness

① Play back the alignment tape.
[PM6KH3 : 859C339030]

Note: In the following adjustment, follow the next procedure for automatic/manual-selection and adjustment of tracking.

Models with a jog dial on front units.

- Turn the JOG dial while pressing the O.K.PROG. button on the VCR during playback.
- To switch from manual tracking back to automatic digital tracking, press the O.K.PROG. button on the VCR during playback.

Models without a jog dial on front units.

- For the manual tracking adjustment, press an up/down button during reproduction.
- To change the adjustment mode from manual to automatic in the tracking adjustment, press the up and down buttons at the same time.

② In the manual tracking mode, change tracking and make sure the amplitude is changeable while the FM signal remains flat.

③ Adjust tracking so that the amplitude of the FM waveform is maximum. Set the oscilloscope so the amplitude of the FM waveform is 5 division.

④ Adjust tracking so that the peak value of the FM waveform is 4 divisions. Check if the FM waveform B, C, D, and E are within the specified values shown in Fig. 3-2-5.

⑤ If the waveform is not within the specified value, repeat the procedure for checking and adjustment of FM envelope in Item 3-2 from the beginning.

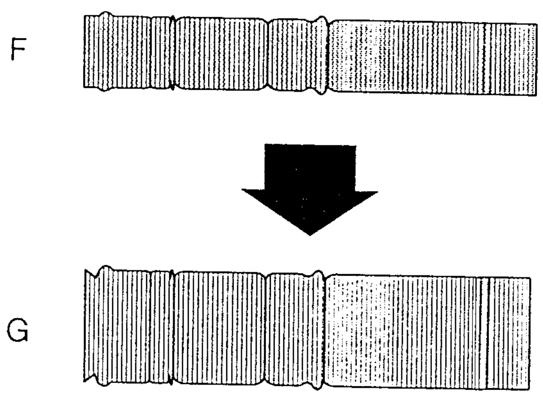
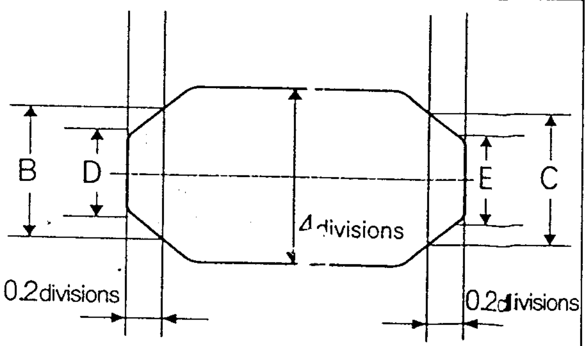


Fig. 3 - 2 - 4



B , C	At least 2.8 of the scale
D , E	At least 2.0 of the scale

Fig. 3 - 2 - 5

3-2-6 Check 1: Tape Running Condition on Guide Rollers (Refer to Fig. 3-2-6)

① Play back the alignment tape.
[PM6KH3 : 859C339030]

② Visually check if there is a space between the tape and the lower flange of the supply guide roller and takeup guide roller.

③ If there is no space, replace the tape guide as in Item 3-2-7.

④ If the supply tape guide is replaced, check the guide roller as in Item 3-2-1 and if the takeup tape guide is replaced, check the guide roller as in Item 3-2-1 and check the FM waveform flatness in Item 3-2-5.

⑤ Load and unload the tape several times alternately check that flatness of the FM waveform does not change.

⑥ If flatness changes, check if the A/C arm is loose. If it is not loose, replace the A/C arm and repeat the procedure of coarse adjustment of phase in Item 3-2-4.

3-2-7 Replacement of Tape Guides

① If the current tape guide has no marking, replace it with one with a red mark.

② If the current tape guide has a black mark, replace it with one with no mark. If this replacement is not effective, replace the tape guide with one with a red mark.

③ If the current tape guide has a red mark, replace it with another one with red mark.

3-2-8 Check 2: Tape Running Condition on Guide Rollers.

① Play back the alignment tape.
[PM6KH3 : 859C339030]

② Lightly press and release the top of the supply guide roller and takeup guide roller. Check if the FM waveform is quickly restored to the previous level.

③ If the waveform is not quickly restored, replace the tape guide as in Item 3-2-7.

④ If the supply tape guide is replaced, check the guide roller as in Item 3-2-1, and if the takeup tape guide is replaced, check the guide roller as in Item 3-2-1 and the check FM waveform flatness as in Item 3-2-5.

⑤ If satisfactory, tighten the set screw of the guide roller on the supply side and the takeup side.

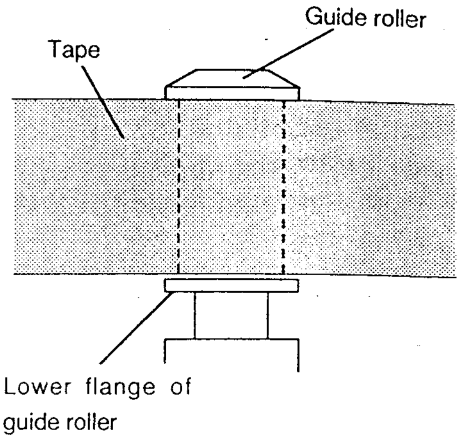


Fig. 3 - 2 - 6

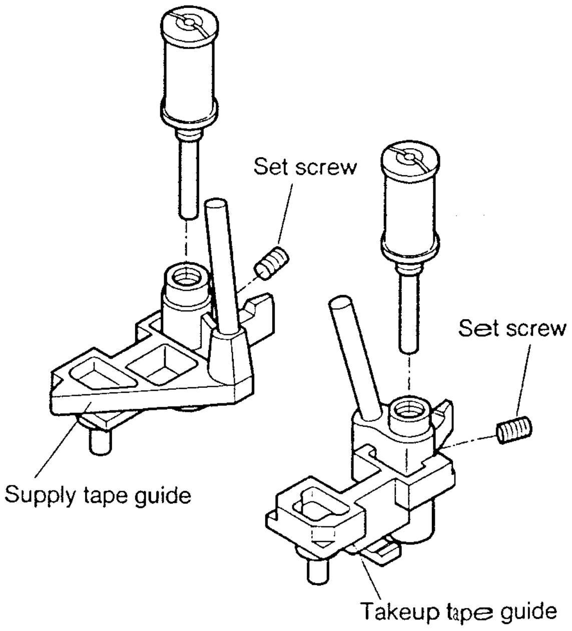


Fig. 3 - 2 - 7

Identification of Tape Guide Item Number
(Example; Parts No. 635B0590$\boxed{1}$
Item No.

Item No. 1	No marking
Item No. 2	Marked with black magic marker
Item No. 3	Marked with red magic maker

*The marking point is on the top of the tape guides shown in figure above.

3-3 Adjustment of A/C Head

3-3-1 Adjustment of A/C Head Slant

① Playback a blank tape.
② Slowly turn the adjusting screw C counter-clockwise to crease the bottom of the tape slightly at the flange portion of the takeup tape guide.
③ Return adjusting screw C slowly to remove the crease.
④ Slowly turn adjusting screw C counter-clockwise again and stop turning just before the tape is creased.

3-3-2 Adjustment of A/C Head Azimuth and Height

① If the height of the CTL head is different from the specified-value in Fig. 3-3-2, adjust the height by the adjusting screw A.
② If adjusting screw A is moved, repeat the procedure in Item 3-3-1 to adjust the A/C head Slant.
③ Connect the oscilloscope to the audio output terminal and set the VCR to the playback mode.
④ Playback the standard tape. [PM6KH3 : 859C339O30]
⑤ Turn adjusting screw B to adjust azimuth so that the audio output level is maximum. Set the scope for an amplitude of 5 divisions.
⑥ After the adjustment of ⑤, pull out the screw driver and check if the audio output level is 4.6 divisions or more, when the maximum level (audio output) of ⑤ was set for 5 divisions.
⑦ If the audio output level is below the specified value, repeat the procedure ①~⑥.
⑧ Push the A/C head to the right and left(in the direction of A and A' in Fig. 3-3-1) and the release the A/C head. Check that the audio output level does not change. (Do not push past the point where the audio output level is reduced by 3/4 of its maximum value.)
⑨ Set the VCR to the playback mode and check if the change of the audio output level is less than 2dB.
⑩ If the change is over 2dB, adjust the A/C head slant again and recheck.
⑪ If not satisfactory, replace the takeup tape guide complying with the following procedure and repeat this adjustment.

- If the original tape guide has no marking, replace it with the one with a black mark.
- If the original tape guide has a black mark, replace it with one with a black mark.
- If the original tape guide has a red mark, replace it with the one with a red mark. If this replacement is not effective, replace it with one with a black mark.

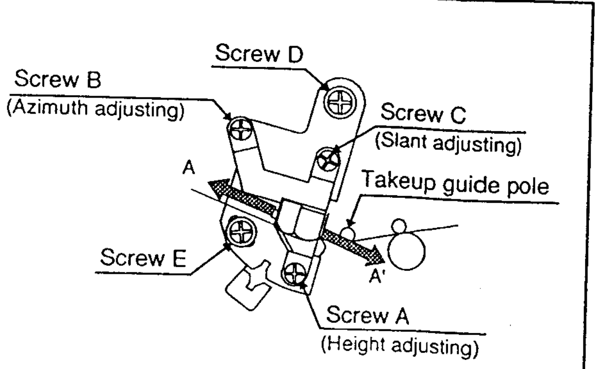


Fig. 3 - 3 - 1

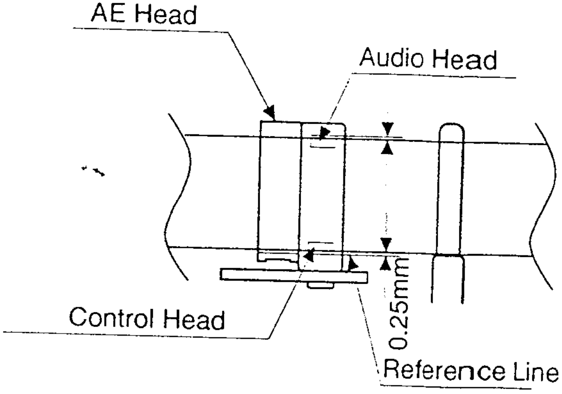


Fig. 3 - 3 - 2

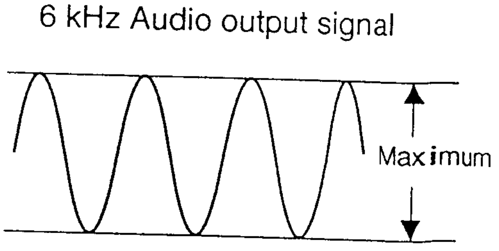


Fig. 3 - 3 - 3

Identification of Tape Guide Item Number
(Example; Parts No. 635B059010)
Item No.

Item No. 1	No marking
Item No. 2	Marked with black magic marker
Item No. 3	Marked with red magic marker

*The marking point is on the tops of the Takeup and Supply tape guides.
(Refer to Fig. 3-2-7)

3-4 Adjustment of Phase

① Set the VCR to the playback mode. (Use the alignment tape specified below to perform adjustment①~④.

PM6KH3(3HEAD) : 859C339030
PM3KE6(CH1)25(4HEAD) : 859C568050

② Preset tracking. (Refer to NOTE 1 in Para. 3.)

③ Loosen the screw E, insert a screw driver into the gap between the Base A/C and the main plate, and shift the Base A/C right and left to adjust the FM waveform to maximum.

④ Tighten the screw E.

⑤ Play back the alignment tape. (PMX:859C568070)

⑥ Connect TP2A (the FM waveform output) and the audio output terminal to the oscilloscope, external Trig. to TP2H, and check if the missing portions of the FM waveform and that of the audio waveform are within the specified value (field). (Refer to Fig. 3-4-2.)

⑦ If they are not within the specified value, repeat the procedure ③.

⑧ Turn the normal tracking control to adjust the FM waveform for maximum and set the oscilloscope so that the waveform is '5' divisions.(Refer to Note in Para. 3-2-5 about tracking adjustment.)

⑨ Preset tracking. (Refer to NOTE 1 in Para. 3.)

⑩ Check that the FM waveform on the oscilloscope is " 4.8 " or more divisions.

⑪ If the FM waveform is below " 4.8 " divisions, perform this adjustment after tracking preset.

⑫ Push the A/C head to the right and left (in the direction of A-A' in Fig. 3-4-1) and then release the A/C head. Check that the amplitude of the FM waveform does not change from that before shifting the A/C head.

⑬ If the amplitude changes, check if the A/C arm shaft is loose. If it is not loose, replace the A/C arm and repeat the procedure of this adjustment from the beginning, after the adjustment of A/C head in Item 3-3.

⑭ Alternately load and unload the tape several times to check that the amplitude of the FM waveform does not change.

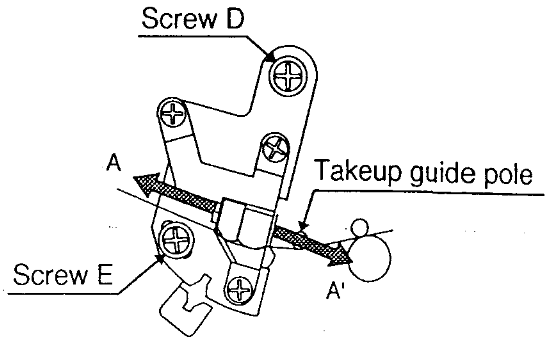


Fig. 3 - 4 - 1

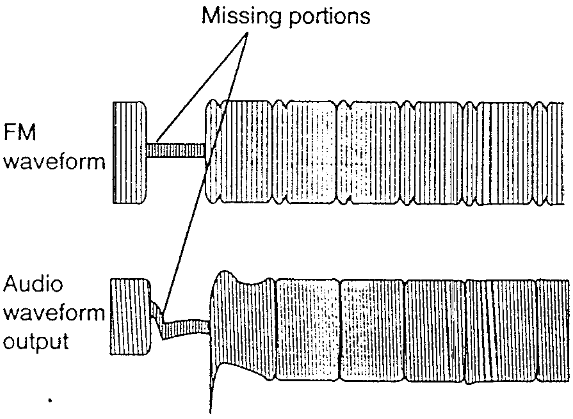


Fig. 3 - 4 - 2

3-5 Adjustment of Takeup Guide Arm Height

① Run a final portion of E-240 blank tape in the reverse search mode.

② Tighten the adjusting nut of takeup tape guide until the tape is creased at the lower flange of the takeup guide pole. Then slowly return the nut and stop at the point where the crease is removed. (During adjustment, use a uncovered cassette tape or raise the cover so that the adjustment can be performed.)

Note: During adjustment, turn the adjusting nut in the loosening direction. Do not turn the nut more than ±1/2 turn.

③ Eject the cassette tape, set the VCR to the reverse search mode again, and check that the tape is not creased at the upper or lower flange of the takeup tape guide.

④ Set the VCR to the playback mode and check that the tape is not creased at the upper or lower flange of the takeup guide pole.

⑤ Run the start portion of E-180 blank tape in the forward search mode and check that the tape is not creased at the takeup guide pole.

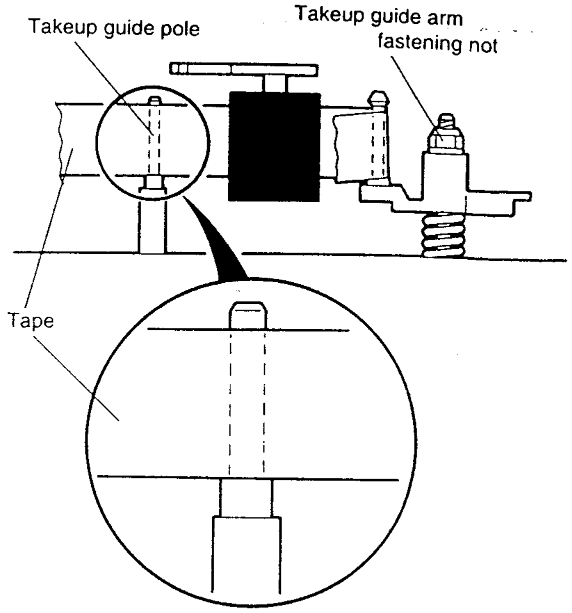


Fig. 3 - 5

4. Servicing for Tape Jamming during the Loading Mode

① Remove the upper cover.

② Remove the front unit.

③ Remove the bottom panel.

④ Reverse the deck and turn the pulley worm J in the direction shown by the arrow in Fig.4-1, observe whether the tape guides move to the unloading position. If they do not, follow the procedure (1).
If they do, follow the procedure (2).

(1) If the tape guides do not move (the pulley worm J does not turn);

① Unfasten the clamp holding the leads of the loading motor, which are attached to the side plate of the cassette housing. Unscrew screws (ⓐ and ⓑ) holding the cassette housing as shown in Fig. 4-2.

② Hold the cassette door with a screw driver to keep it open. (Take care not to allow the screw driver to touch other parts of the tape transport.)

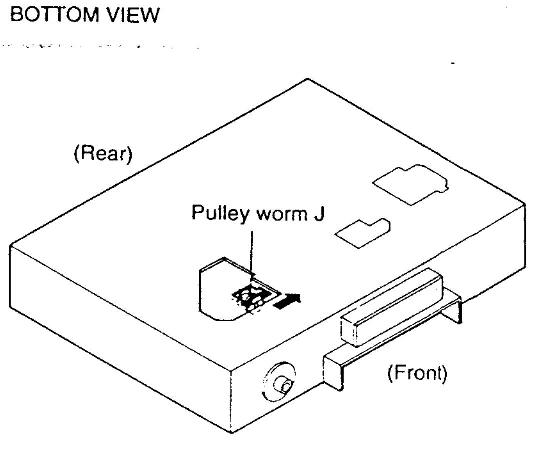


Fig. 4 - 1

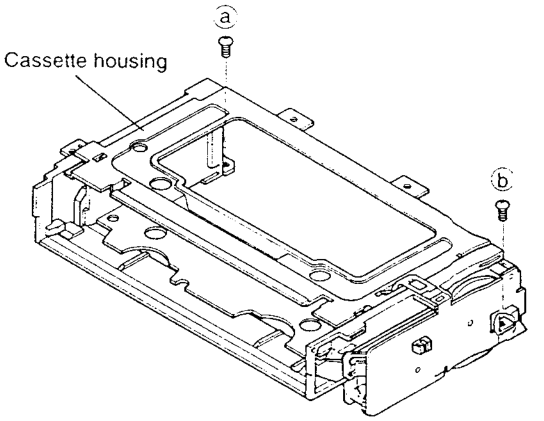


Fig. 4 - 2

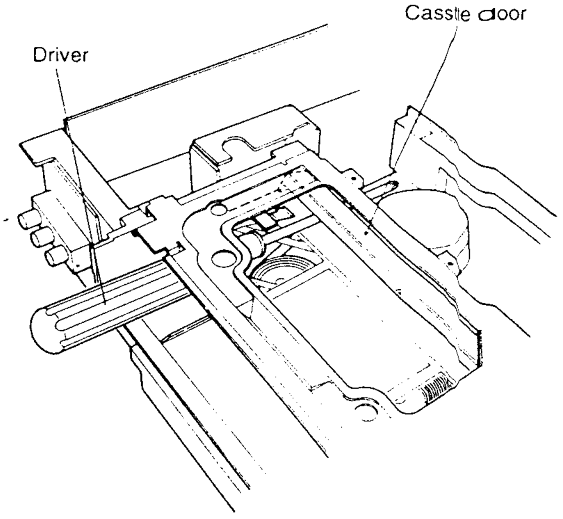


Fig. 4 - 3

③ Open the cassette door fully with your hand. Unfasten the catch to remove the pinch roller arm cap as shown in Fig. 4-4. (Refer to Para. 2-24 for the removal method.)

④ Push part A of the pinch roller arm assembly, shown in Fig. 4-5, in the direction shown by the arrow to make a space between the pinch roller arm assembly and the tape. Remove it together with the pinch cam taking care not to damage the tape.

⑤ Remove the screw driver (refer to Item ②), while holding the cassette door open with your hand. While pushing the tension arm in the direction shown by the arrow in Fig. 4-6 raise the cassette housing upward to remove it from the tape transport as shown in Fig. 4-7. Take care that the grease, which is applied to the main plate, does not adhere to the tape.

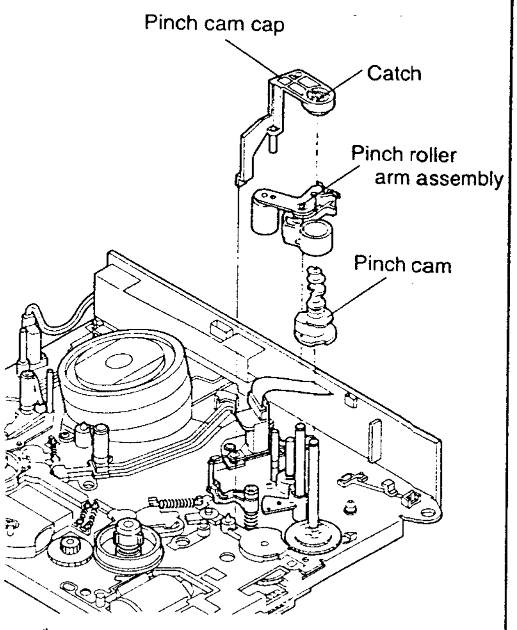

Pinch cam cap
Catch
Pinch roller arm assembly
Pinch cam

Fig. 4 - 4

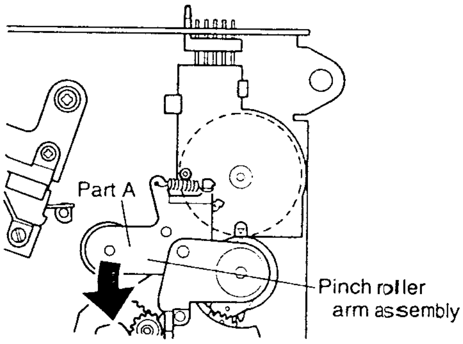

Part A
Pinch roller arm assembly

Fig. 4 - 5

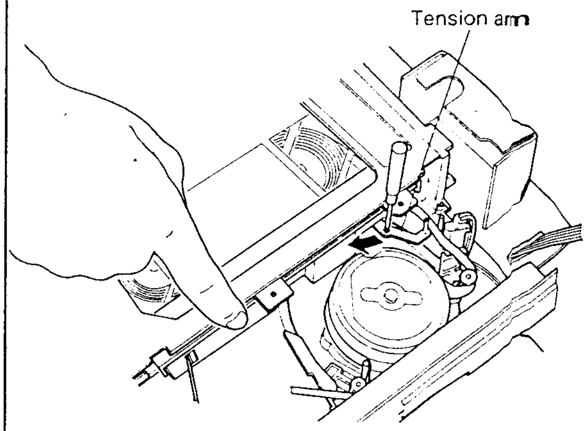

Tension arm

Fig. 4 - 6

⑥ Turn the cassette reel of the cassette tape to wind up the tape as shown in Fig. 4-8.

⑦ Turn the wheel gear shown in Fig. 4-9 in the direction shown by the arrow to eject the cassette tape.

⑧ Reverse the deck and turn the motor pulley J in the direction, shown by the arrow in Fig. 4-1, so that the matching mark M of the mode switch is in the position shown in Fig. 4-10 (the eject position). Make sure that the matching marks of the mode switch and the gear pinch, and those of the gear pinch and the joint gear, respectively, align as shown in Fig. 4-11. Turn the takeup guide arm clockwise to such a degree that takeup guide gear is not in the way of mounting the pinch roller cam to the shaft. Install the pinch roller cam so that its holes align with the triple catch of the gear pinch. (Refer to Para. 2-24 for the installation method.)

⑨ Install the pinch roller arm and the pinch roller arm cap.

⑩ Install the cassette housing. (Refer to Para. 2-1 for the installation method.)

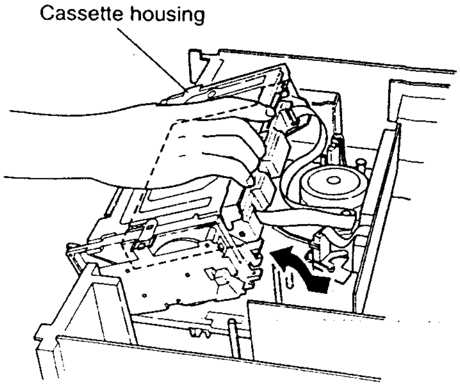


Fig. 4 - 7

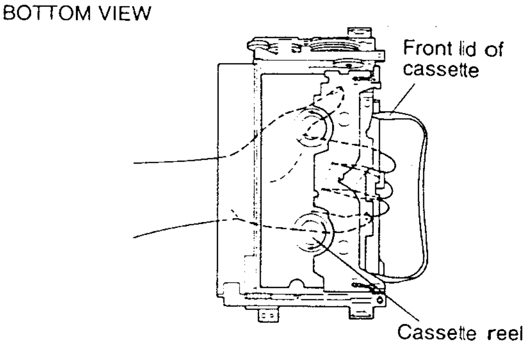


Fig. 4 - 8

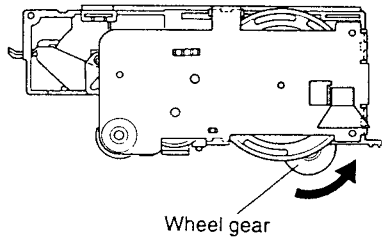


Fig. 4 - 9

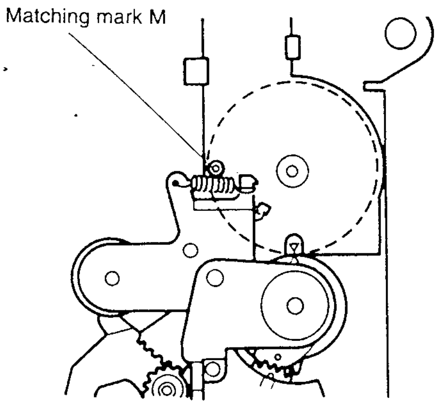


Fig. 4 - 10

(2) If the tape guides move (the pulley worm J turns);

① Reverse the deck and turn the pulley worm J in the direction shown by the arrow in Fig. 4-1 so that the takeup guide arm moves to the end of the unloading cycle.

② Turn the capstan shaft, shown in Fig. 4-12, clockwise to turn the reel so that the tape is wound back into the cassette. (Take care not to scar or stain the capstan shaft. After winding up the tape, clean the capstan shaft with alcohol, refer to Para. 1-2.)

③ Turn the pulley worm J as in Item ① so that the matching mark of the mode switch is in the position shown in Fig. 4-10 (the eject position). Eject the cassette tape.

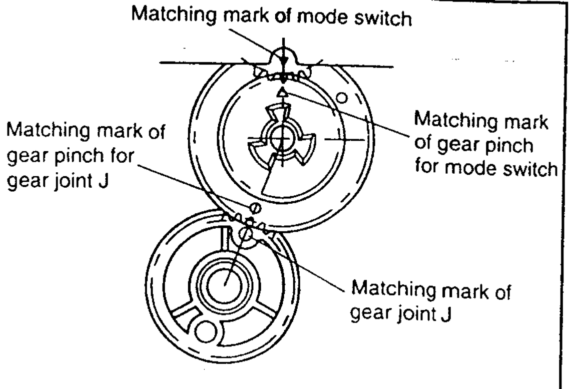

Matching mark of mode switch
Matching mark of gear pinch for gear joint J
Matching mark of gear pinch for mode switch
Matching mark of gear joint J

Fig. 4 - 11

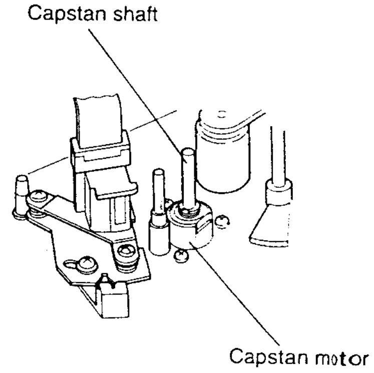

Capstan shaft
Capstan motor

Fig. 4 - 12

SPECIFICATION OF VPS RECORDING SYSTEM
[HS-M30V(G), HS-M40V(G) only]

1. VPS Signal

The VPS signal makes it possible during timer recording of television programs to switch on and off the unit at the correct time by using the preprogrammed recording time. The VPS signal is transmitted in the 16th line of the vertical blanking signal. Refer to Fig. 1. The VPS data signal is shown in Fig. 2. The television stations are responsible for changing of the VPS data. These are included in words 11 to 14.

The normal VPS code includes time data and program data. It is transmitted with the program and recognized by the unit as program identification. A program, which was scheduled for the time from 0:99 to 4:00 and the start of which was changed to the previous day, keeps its original label. If the program is extended, the label is valid until 4:00 of the following day, if the correct sending code is received. The maximum starting time for a delayed program is 4:00 of the following day.

2. Expected VPS time and type of VPS recording

2-1 At 20:00 on the day before the starting time the recorder is switched on and enters the expected VPS time. During the expected VPS time the unit is switched to the corresponding channel and waits for the VPS signal.

2-2 If a VPS signal, which confirms to the preprogrammed signal, is received, the unit switches into the recording mode.

2-3 If no VPS signal or status code is transmitted, the original recording time is used.

2-4 If an interruption code is transmitted during the VPS recording, the recording is stopped and the unit switches into the VPS stand-by mode. The recording is started, as soon as the regular VPS code is received again.

2-5 If the normal VPS code changes after the programmed timer recording into an unnormal code, the recording is finished.

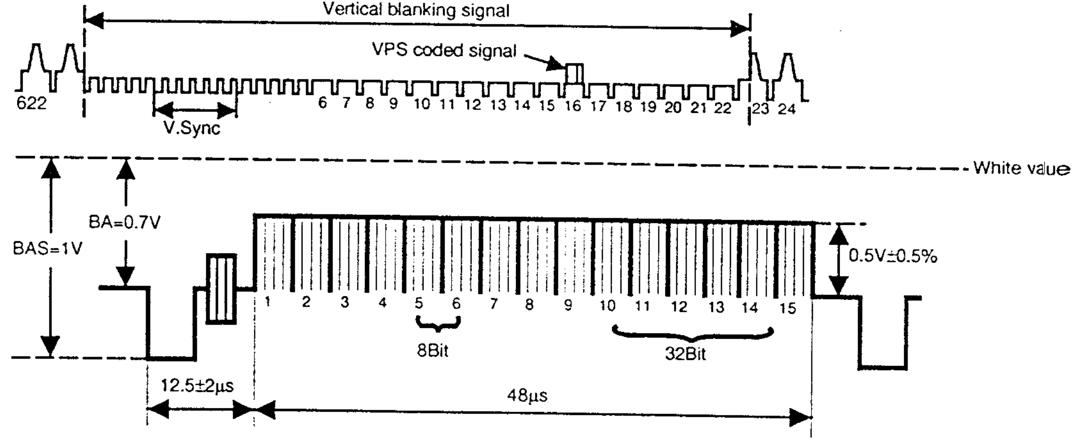
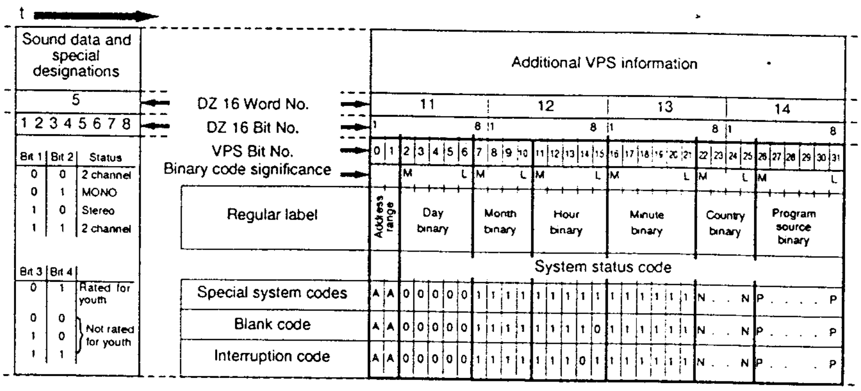

Vertical blanking signal
VPS coded signal
622
V.Sync
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
White value
BA=0.7V
BAS=1V
0.5V±0.5%
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
8Bit
32Bit
12.5±2μs
48μs

Fig. 1 Inserting the data line into the FBAS signal


t
Sound data and special designations
5
1 2 3 4 5 6 7 8
Bit 1 Bit 2 Status
0 0 2 channel
0 1 MONO
1 0 Stereo
1 1 2 channel
Bit 3 Bit 4
0 1 Rated for youth
0 0
1 0
1 1
Not rated for youth
DZ 16 Word No.
DZ 16 Bit No.
VPS Bit No.
Binary code significance
Additional VPS information
11
12
13
14
M
L
Regular label
Address range
Day binary
Month binary
Hour binary
Minute binary
Country binary
Program source binary
System status code
Special system codes
Blank code
Interruption code
A
N
P

The 2-channel-status is coded 11 at the studio side; 00 has to be considered at the receiving sidein special cases only.

M = MSB
L = LSB

A = Actual address range code
N = Actual country code
P = Actual program source code

Fig. 2 Data format of additional information in data line 16

GLOSSARY OF ABBREVIATIONS

A/C	Audio/Control
ACC	Automatic Color Control
A.E	Audio Erase
AFC	Automatic Frequency Control
AFT-D	Automatic Fine Tuning Door Switch
AGC	Automatic Gain Control
AL	After Load
AMP	Amplifier
ANT	Antenna
A-PB	Audio-Playback
A-REC	Audio-Recording
ALC	Automatic Level Control
B-FS	Brake Forward Search
B-RS	Brake Reverse Search
BPF	Band-Pass Filter
B/W	Black and White
BS	Band SW
CASS	Cassette
CP	Capstan
CP-FG	Capstan-Frequency Generator
CP-F/R	Capstan-Forward/Reverse
CP-M	Capstan-Motor
CONV	Converter
CTL	Control
C-LAMP	Cassette Lamp
C-I LAMP	Cassette Indicator Lamp
CE	Chip Enable
$\overline{\text{CE}}$	Not Chip Enable
CK	Clock
CL	Clear
CNT	Counter
CP R-R	Capstan Reverse Rotation
CS-1	Cassette Switch 1
CS-2	Cassette Switch 2
DAL	Delay-After Loading
DEMOD	Demodulator
DET	Detector
DL	Delay Line
DL-REV	During Reverse
DL-FWD	During Forward
DOC	Drop Out Compensator
DL-SL	During Slow
DL-$\overline{\text{SS}}$	During Not Speed Search
DOP	Drop Out Pulse
EF	Emitter Follower
EMPHA	Emphasis
EQ	Equalizer
EE	Electronic-Electronic
ES	End Sensor
FE-H	Full Erase Head
FF	Fast Forward
FG	Frequency Generator
FL-SW	Front Loading SW
FLM	Front Loading Motor
F/R-SW	FF/Rewind Switch
F/R	Forward/Reverse
FS	Forward Search
G	Ground
HE	Hall Element
H-LED	Humidity-LED
H-SENS	Humidity-Sensor
HPF	High-Pass Filter
LIM	Limiter
LPF	Low-Pass Filter
LM	Loading Motor
MDA	Motor Drive Amplifier
MC	Mechanical Control
MIC	Microphone
MOD	Modulator
$\overline{\text{N}}$	Not Normal
OPE	Operation
OSC	Oscillator
O-PWV	ON/OFF Command from Remote Decoder
PB	Play Back
PG	Pulse Generator
P/R-SW	P.B/REC-SW
PCB	Printed Circuit Board
PIC	Picture Control
P/R	Play/Record
PSC	Pulse swallow control
PWT-SET	Power TV Set
PWV	ON/OFF Command to B+ Switching Circuit
REC	Recording
REF	Reference
RIS	Record Inhibit Switch
REW	Rewind
REG	Regulator
RS	Reverse Search
REC-2	Record Command for the Fine Editing Circuit
R-FS	Reel Drive Forward Search
R-P/R	Reel Drive Play/Record
S/AL	Stop After Load
SL	Slow
SLOK	Slow OK
S/P	Still/Pause
SS	Start Sensor
SRV-REC	Servo Record
$\overline{\text{SS}}$	Not Speed Search
S-STOP	Stop Command
STOK	Still OK
STW	Stop Watch
SENS	Sensor
STBY	Stand By
TM	Take up Motor
T-REC	Timer-Record
T.P	Test Point
TR	Transistor
TU-P	Tuner-Power
UL	Unload
VS	Voltage Synthesizer
V.SYNC	Vertical Sync
VCO	Voltage Controlled Oscillator
VXO	Variable Crystal Oscillator
W/D	White/Dark
X'OSC	Crystal Oscillator
Y/C	Luminance/Chrominance

CHIP PARTS REPLACEMENT

Some resistors, shorting jumpers (0Ω resistor), ceramic capacitors, transistors and diodes are Chip Parts which are used for certain circuit elements. When replacing these parts, note the following cautions.

Cautions:

A. Use fine tipped, well insulated soldering pencil (iron) about 30 watts and tweezers.

B. Melting the solder, remove the Chip Parts carefully not to tear off the copper foil of the printed circuit board.

C. Discard removed chips; do not reuse them.

D. Do not apply heat for more than 3 seconds to the new Chip Parts.

E. Avoid using a rubbing stroke when soldering.

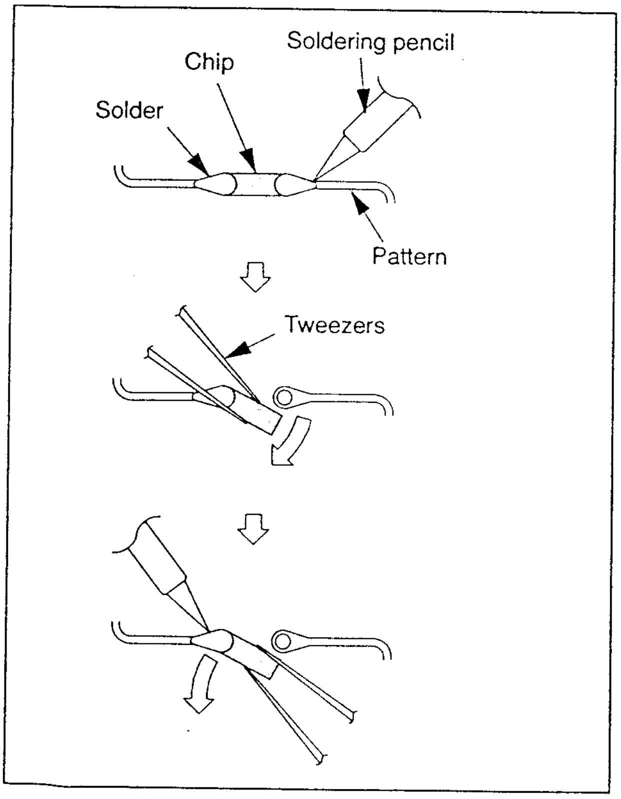
F. Take care not to scratch when soldering, or damage the Parts.

G. Supplementary cementing is not required.

1 Removal of Chip Parts (Resistors, Capacitors, etc.)

A. Grasp the part with tweezers. Melting the solder at both side alternately, remove the one side of the part with a twisting motion.

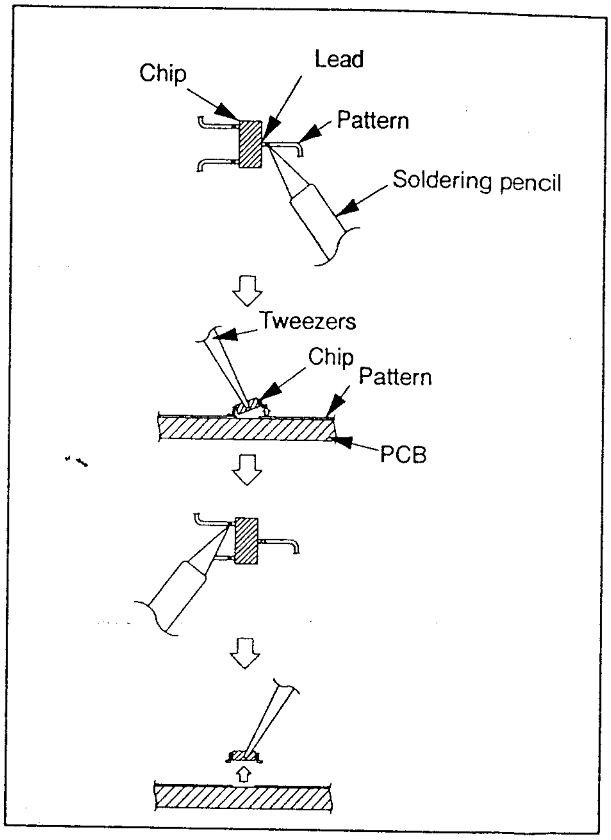
B Melt the solder at the other side and remove the part.


Soldering pencil
Chip
Solder
Pattern
Tweezers

2 Removal of Chip Parts (Transistors)

A. Melting the solder of one lead, lift the side of that lead upward.

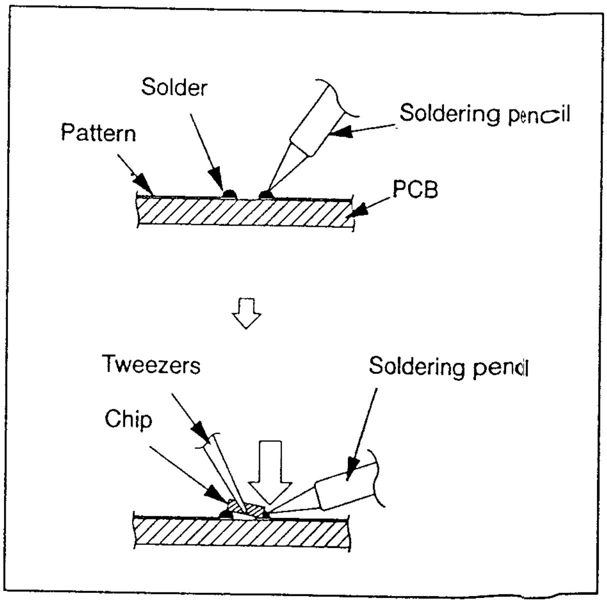
B. Simultaneously melt the solder of the two remaining leads and lift the part to remove.


Chip
Lead
Pattern
Soldering pencil
Tweezers
Chip
Pattern
PCB

3 Replacement

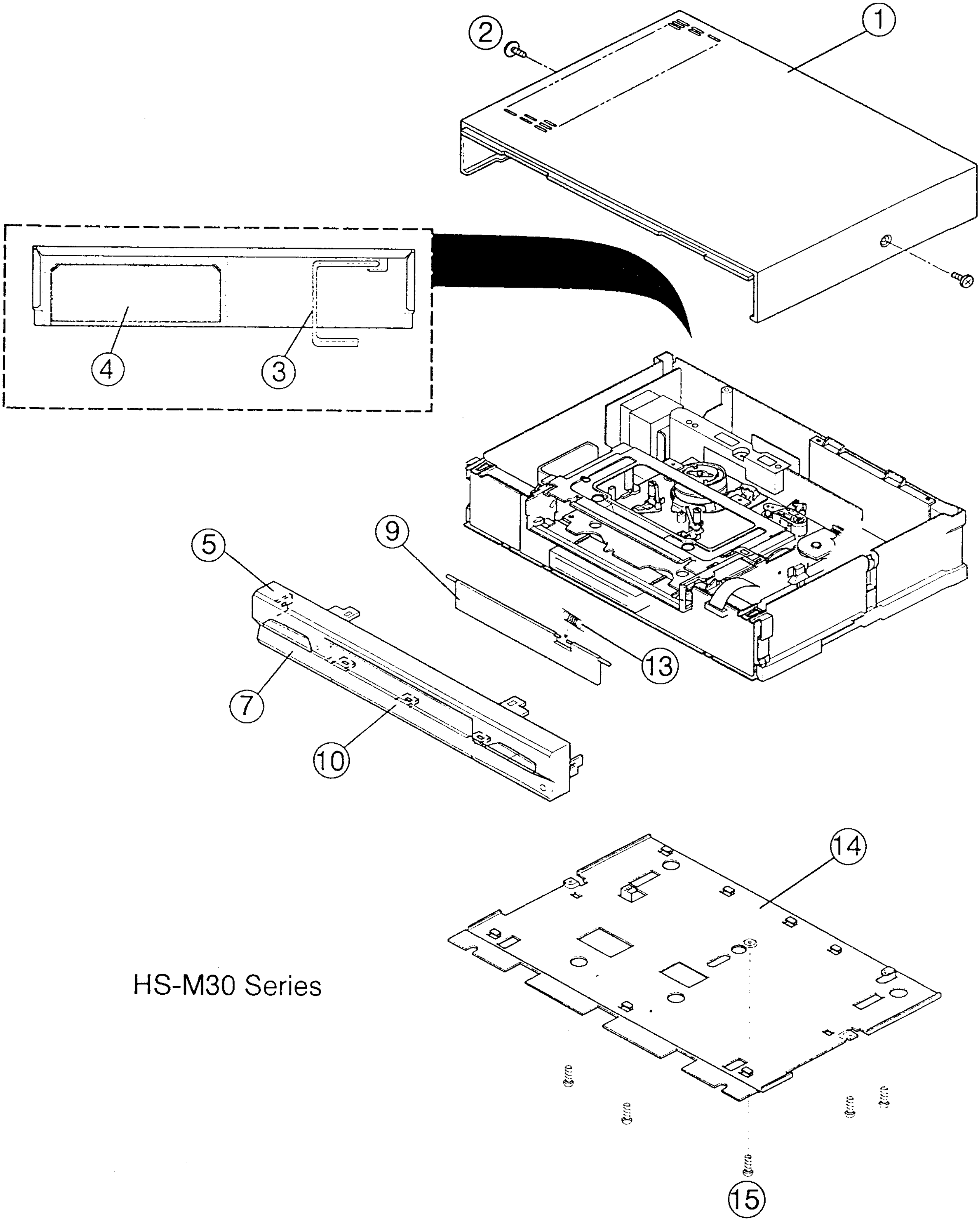
A. Persolder the contact points of the circuit pattern.

B. Press the part downward with tweezers and apply the soldering pencil as shown in the figure.


Solder
Pattern
Soldering pencil
PCB
Tweezers
Soldering pencil
Chip

PARTS LIST

1. CABINET ASSEMBLY


1
2
3
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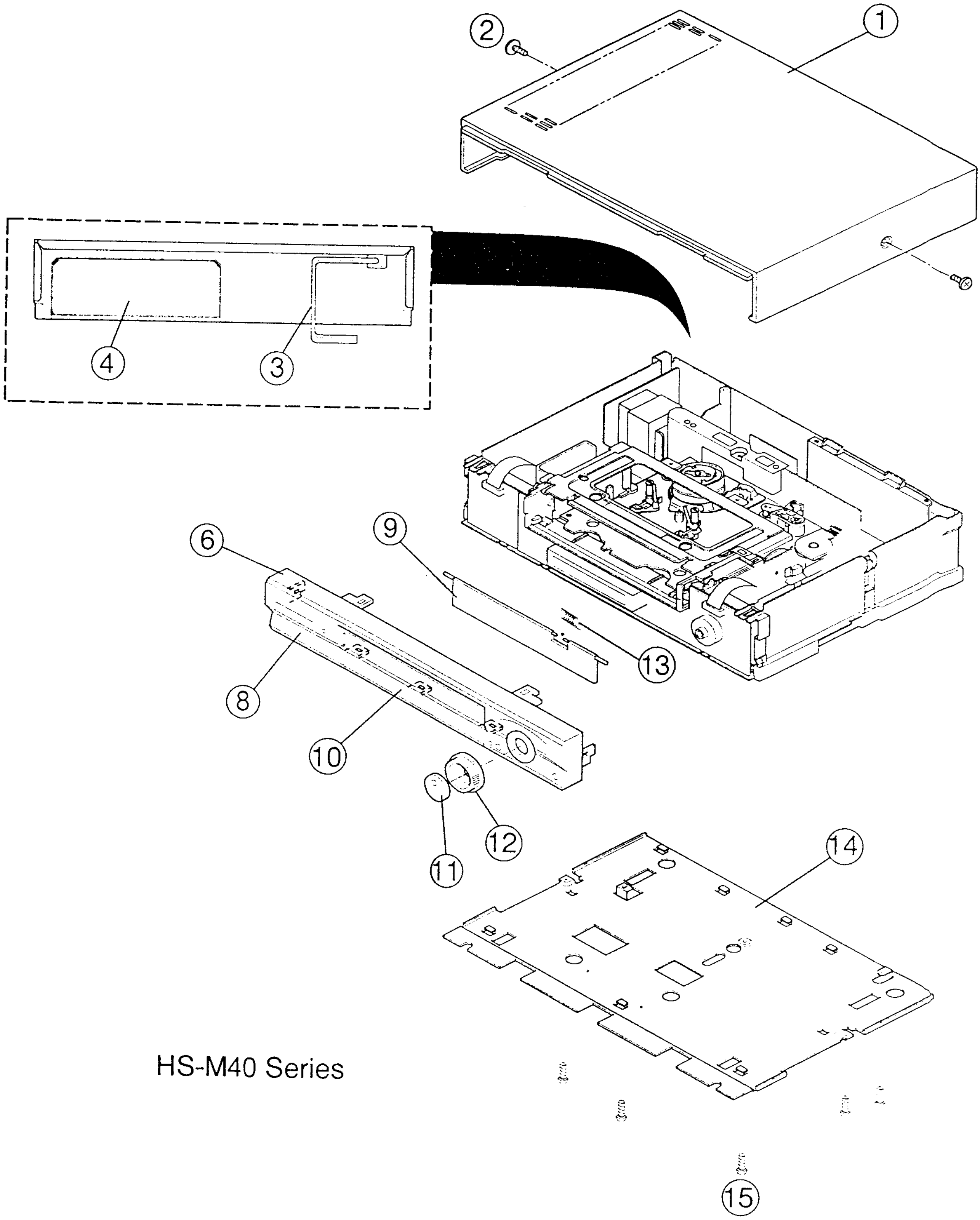
9
10
13
14
15

HS-M30 Series

ITEM NO.	PARTS NO.	PARTS NAME	DESCRIPTION
CABINET ASSEMBLY			
1	968C040001	TOP COVER ASSY	
2	669D223080	SCREW	3X10
3	246C101010	AC POWER CORD	[M30EE, M30Y, M30VE, M30VY]
3	246C149040	AC POWER CORD	[M30VG]
4	761B257030	ANTENNA COVER	[M30VE]
4	761B257070	ANTENNA COVER	[M30Y, M30VY]
4	761B257080	ANTENNA COVER	[M30VG]
4	761B257090	ANTENNA COVER	[M30EE]
5	968B027005	FRONT UNIT	[M30Y]
5	968B027006	FRONT UNIT	[M30VE]
5	968B027007	FRONT UNIT	[M30VY]
5	968B027009	FRONT UNIT	[M30EE]
5	968B027010	FRONT UNIT	[M30VG]
7	752C090030	DOOR PANEL ASSY	[M30Y]
7	752C090090	DOOR PANEL ASSY	[M30EE]
7	752C090060	DOOR PANEL ASSY	[M30VE, M30VY]
7	752C094010	DOOR PANEL ASSY	[M30VG]
9	752C091020	CASSETTE DOOR	[M30VE, M30VY]
9	752C091030	CASSETTE DOOR	[M30Y]
9	752C091090	CASSETTE DOOR	[M30EE]
9	752C095010	CASSETTE DOOR	[M30VG]
10	702B932010	TIMER PANEL	
13	572D385010	SPRING F/L	
14	590A407010	BOTTOM PANEL	
15	669D220030	SCREW	3X10 46LA005



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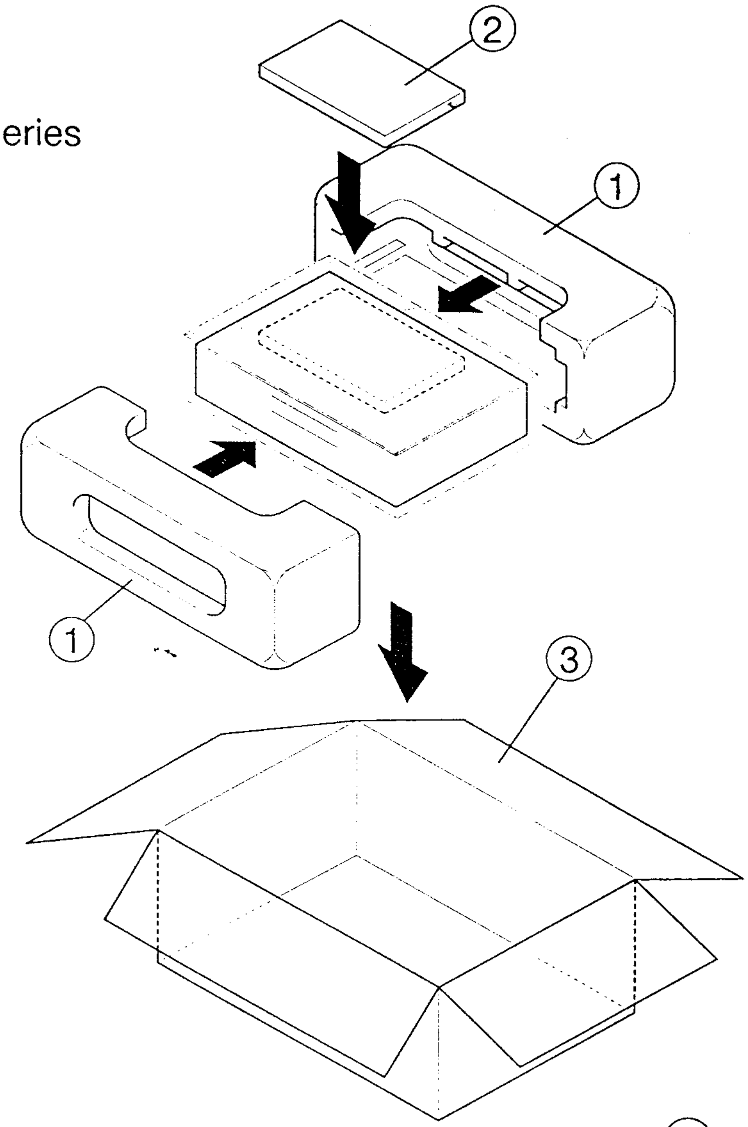
HS-M40 Series

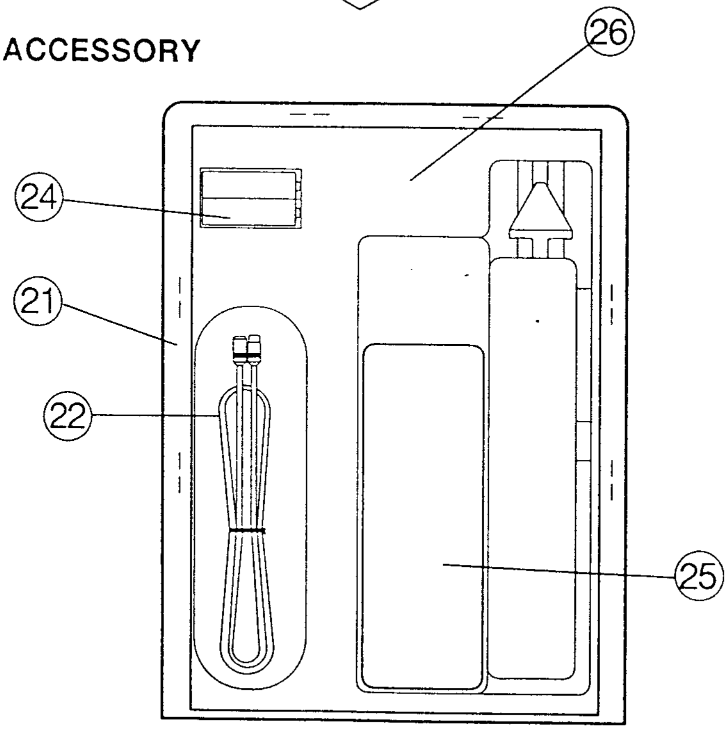
ITEM NO.	PARTS NO.	PARTS NAME	DESCRIPTION
CABINET ASSEMBLY			
1	968C040001	TOP COVER ASSY	
2	669D223080	SCREW	3X10
3	246C101010	AC POWER CORD	[M40EE, M40VE, M40VY]
3	246C149040	AC POWER CORD	[M40VG]
3	246C167010	AC POWER CORD	[M40VB, M40VIR]
4	761B257030	ANTENNA COVER	[M40VB, M40VE, M40VIR]
4	761B257070	ANTENNA COVER	[M40VY]
4	761B257080	ANTENNA COVER	[M40VG]
4	761B257090	ANTENNA COVER	[M40EE]
6	968B028015	FRONT UNIT	[M40VY]
6	968B028016	FRONT UNIT	[M40VE]
6	968B028017	FRONT UNIT	[M40VB]
6	968B028018	FRONT UNIT	[M40VIR]
6	968B028019	FRONT UNIT	[M40EE]
6	968B028020	FRONT UNIT	[M40VG]
8	752C092060	DOOR PANEL ASSY	[M40VY]
8	752C092080	DOOR PANEL ASSY	[M40VB]
8	752C096020	DOOR PANEL ASSY	[M40VG]
8	752C092070	DOOR PANEL ASSY	[M40VE]
8	752C092090	DOOR PANEL ASSY	[M40VIR]
8	752C096010	DOOR PANEL ASSY	[M40EE]
9	752C093060	CASSETTE DOOR	[M40VE, M40VY]
9	752C093080	CASSETTE DOOR	[M40VB]
9	752C093090	CASSETTE DOOR	[M40VIR]
9	752C097010	CASSETTE DOOR	[M40EE]
9	752C097020	CASSETTE DOOR	[M40VG]
10	702B932010	TIMER PANEL	
11	704C946010	JOG DIAL	
12	704C947010	SHUTTLE RING	
13	572D385010	SPRING F/L	
14	590A407010	BOTTOM PANEL	
15	669D220030	SCREW	3X10 46LA005

2. Packing Parts

HS-M30 Series

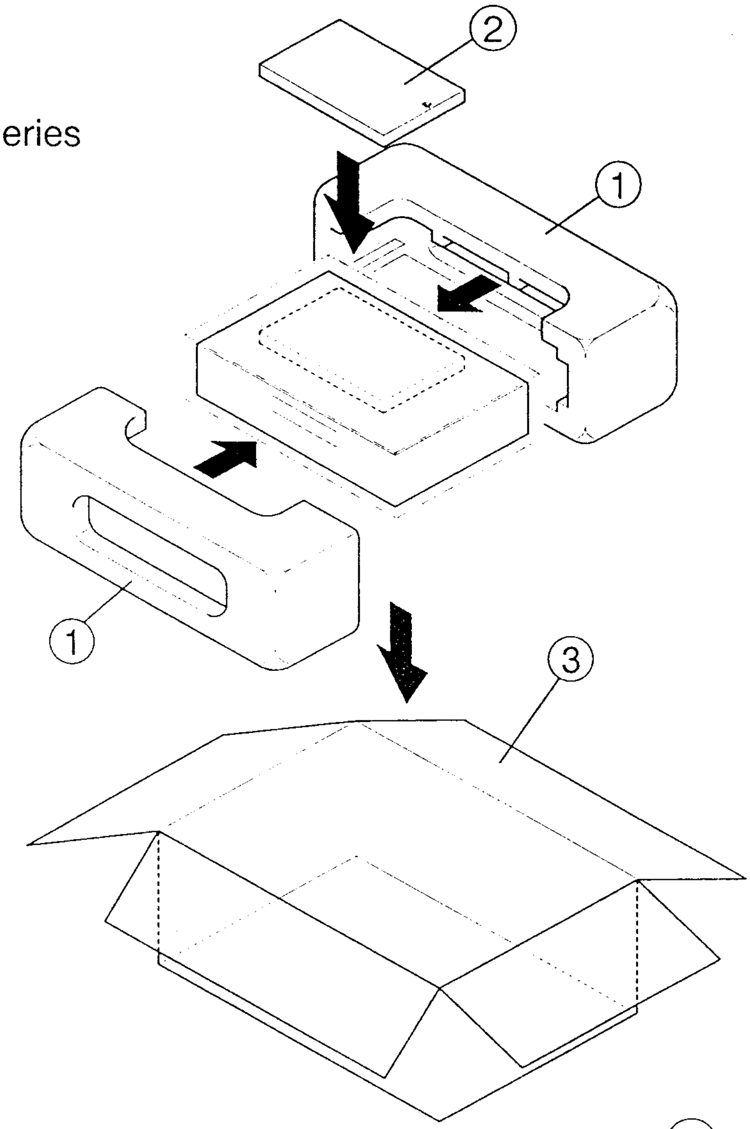


ACCESSORY

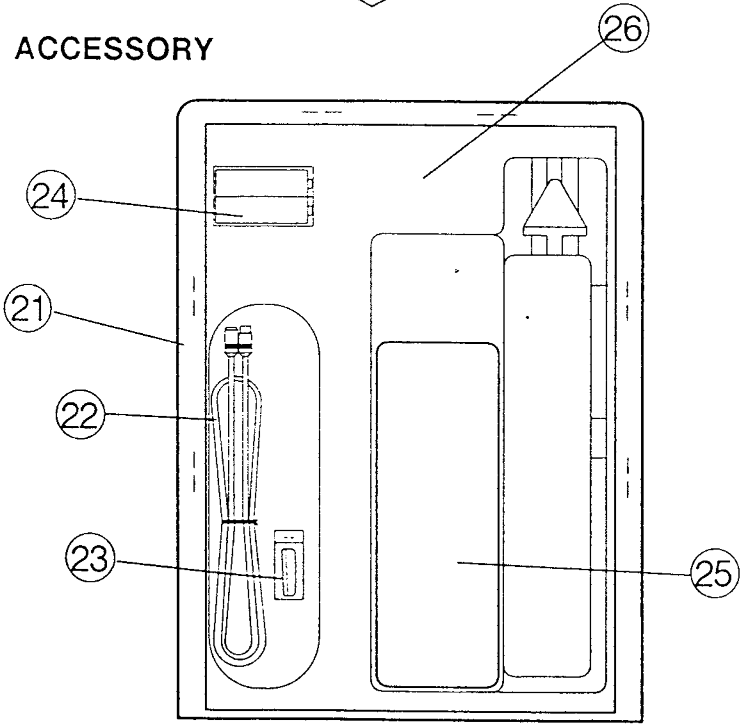


ITEM NO.	PARTS NO.	PARTS NAME	DESCRIPTION
PACKING PARTS			
1	803A351010	PACKING CUSHION	
2	----------	ACCESSORY	
3	802B459020	PACKING CASE	[M30Y]
3	802B459070	PACKING CASE	[M30VE]
3	802B472050	PACKING CASE	[M30VY]
3	802B482030	PACKING CASE	[M30VG]
3	802B482040	PACKING CASE	[M30EE]
ACCESSORY			
21	829B013030	ACCESSORY PACK	[M30Y, M30VY]
21	829B013040	ACCESSORY PACK	[M30EE, M30VE]
21	829B013070	ACCESSORY PACK	[M30VG]
22	242D231030	CABLE	1.5m [M30EE, M30Y, M30VE, M30VY]
22	243C120010	CABLE	1.5m [M30VG]
24	----------	BATTERY	
25	939P574010	REMOTE HAND UNIT	[M30EE, M30Y]
25	939P576010	REMOTE HAND UNIT	[M30VE, M30VY]
25	939P576020	REMOTE HAND UNIT	[M30VG]
26	872C113000	INSTRUCTION BOOK	[M30Y]
26	872C113010	INSTRUCTION BOOK	[M30VE]
26	872C113040	INSTRUCTION BOOK	[M30VG]
26	872C113050	INSTRUCTION BOOK	[M30EE]
26	872C117020	INSTRUCTION BOOK	[M30VY]

HS-M40 Series



ACCESSORY



ITEM NO.	PARTS NO.	PARTS NAME	DESCRIPTION
		PACKING PARTS	
1	803A351010	PACKING CUSHION	
2	----------	ACCESSORY	
3	802B459030	PACKING CASE	[M40VB]
3	802B459040	PACKING CASE	[M40VY]
3	802B459090	PACKING CASE	[M40VIR]
3	802B482010	PACKING CASE	[M40VE]
3	802B482020	PACKING CASE	[M40EE]
3	802B482060	PACKING CASE	[M40VG]
		ACCESSORY	
21	829B013030	ACCESSORY PACK	[M40VB, M40VIR, M40VY]
21	829B013040	ACCESSORY PACK	[M40EE, M40VE]
21	829B013070	ACCESSORY PACK	[M40VG]
22	242D231030	CABLE	1.5m [M40EE, M40VB, M40VE, M40VIR, M40VY]
22	243C120010	CABLE	1.5m [M40VG]
23	761C536010	JACK COVER	
24	----------	BATTERY	
25	939P575010	REMOTE HAND UNIT	[M40VE, M40VY]
25	939P575020	REMOTE HAND UNIT	[M40VB, M40VIR]
25	939P575030	REMOTE HAND UNIT	[M40VG]
25	939P582010	REMOTE HAND UNIT	[M40EE]
26	872C114000	INSTRUCTION BOOK	[M40VY]
26	872C114010	INSTRUCTION BOOK	[M40VE]
26	872C114020	INSTRUCTION BOOK	[M40VB]
26	872C114030	INSTRUCTION BOOK	[M40VIR]
26	872C114040	INSTRUCTION BOOK	[M40VG]
26	872C114050	INSTRUCTION BOOK	[M40EE]

3. ELECTRICAL PARTS

[Y] : HS – M30 (Y)
[VE] : HS – M30V (E)
[EE] : HS – M30 (EE)
[VG] : HS – M30V (G)
[VY] : HS – M30V (Y)

INTEGRATED CIRCUITS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
IC 51	266P323010	IC	M5144P [EE]
IC101	270P184010	IC	M52318SP
IC102	266P192010	IC	LA7910
IC103	272P654010	IC	M51497L [Y, VE, VG, VY]
IC201	272P221010	IC	BA7254S
IC2A0	270P195010	IC	LA7346
IC2A1	272P702010	IC	LC8992
IC2A3	270P067010	IC	BA7645N [EE, VE]
IC2301	270P167020	IC	LA7156-S [Y, VG, VY]
IC310	272P234010	IC	LA7295
IC3B0	270P046010	IC	BA7644AN [EE, VE]
IC4A0	274P318060	IC	MN67492MSU5
IC4A1	272P079010	IC	NJM2902M
IC501	274P573010	IC	M35013-050SP
IC551	270P185010	IC	SAA5233T [EE, VE, VG]
IC5A0	274P551030	IC	M38185ME-053FP [EE, VE, VG]
IC5A0	274P551040	IC	M38185ME-062FP [Y, VY]
IC5A1	263P593010	IC	CAT35C104P
IC5A2	272P235010	IC	TA7291S
IC5A3	272P204010	IC	LM2904M
IC5A4	266P010020	IC	μPC574J-K
IC5A5	270P070010	IC	AT93C56-10PC [VE, VG, VY]
IC9A0	272P237010	IC	LA6324N

TRANSISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 51	260P419030	TRANSISTOR	2SC2724-D [EE]
Q 52	260P419030	TRANSISTOR	2SC2724-D [EE]
Q 53	260P419030	TRANSISTOR	2SC2724-D [EE]
Q 54	260P560040	TRANSISTOR	2SA933S-S [EE]
Q 55	260P419030	TRANSISTOR	2SC2724-D [EE]
Q 101	260P874010	CHIP TRANSISTOR	2SC3082K-P, Q
Q 102	260P560040	TRANSISTOR	2SA933S-S
Q 103	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 106	260P808010	CHIP TRANSISTOR	DTC114EK [Y, VE, VG, VY]
Q 107	260P802020	CHIP TRANSISTOR	2SA1235-F [Y, VE, VG, VY]
Q 108	260P807010	CHIP TRANSISTOR	UN2212
Q 208	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 211	260P807010	CHIP TRANSISTOR	UN2212
Q 260	260P807010	CHIP TRANSISTOR	UN2212
Q 261	260P807010	CHIP TRANSISTOR	UN2212
Q 262	260P807010	CHIP TRANSISTOR	UN2212
Q 2A1	260P805030	CHIP TRANSISTOR	2SC3053-D [Y, VG, VY]
Q 2A2	260P805030	CHIP TRANSISTOR	2SC3053-D [Y, VG, VY]
Q 2B1	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B5	260P807010	CHIP TRANSISTOR	UN2212
Q 2B6	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B8	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B9	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2C0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2C5	260P807010	CHIP TRANSISTOR	UN2212
Q 2C6	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2C8	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2D0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2D1	260P807010	CHIP TRANSISTOR	UN2212 [Y, /G, VY]
Q 2D4	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2D5	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2D6	260P560040	TRANSISTOR	2SA933S-S
Q 2D7	260P807010	CHIP TRANSISTOR	UN2212
Q 2D9	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2E0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2E1	260P562040	TRANSISTOR	2SA952-K
Q 2E3	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2P0	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2P1	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2P2	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2P4	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2V0	260P802020	CHIP TRANSISTOR	2SA1235-F [EE, VE, VG]
Q 2301	260C676040	TRANSISTOR	2SC3311A-R, S [Y, VG, VY]
Q 2304	260P603010	TRANSISTOR	UN4112 [Y, VG, VY]
Q 310	260P629060	TRANSISTOR	2SC3331-S
Q 3A0	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 3A1	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 4A0	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 4A2	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 4A3	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 4A4	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 4A7	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 4A8	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 501	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 502	260P807010	CHIP TRANSISTOR	UN2212
Q 503	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 506	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 508	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5A1	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5A2	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5A3	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5A4	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5A5	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 5A7	260P807010	CHIP TRANSISTOR	UN2212
Q 5A9	260P806010	CHIP TRANSISTOR	DTA124EK
Q 5B0	260P806010	CHIP TRANSISTOR	DTA124EK
Q 5B1	260P807010	CHIP TRANSISTOR	UN2212
Q 5B2	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5B3	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5B5	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 5B6	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 5B7	260P807010	CHIP TRANSISTOR	UN2212
Q 5B8	260P806010	CHIP TRANSISTOR	DTA124EK
Q 5B9	260P807010	CHIP TRANSISTOR	UN2212
Q 5C0	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 5C1	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5C2	260P807010	CHIP TRANSISTOR	UN2212
Q 5C3	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5E1	268P014030	PHOTO TRANSISTOR	PN205L-(NC).[illegible]Z
Q 5E2	268P014030	PHOTO TRANSISTOR	PN205L-(NC).[illegible]Z
Q 5E3	268P059010	PHOTO INTERRUPTER	RPI-244
Q 5E4	268P059010	PHOTO INTERRUPTER	RPI-244

[Y] : HS – M30 (Y) [EE] : HS – M30 (EE) [VY] : HS – M30V (Y)
[VE] : HS – M30V (E) [VG] : HS – M30V (G)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 9A1	260C628010	TRANSISTOR	2SA1619A-Q
Q 9A2	260P640040	TRANSISTOR	2SD1762-E
Q 9A3	260P640040	TRANSISTOR	2SD1762-E
Q 9A4	260P640040	TRANSISTOR	2SD1762-E
Q 9A5	260P613010	TRANSISTOR	2SC4208A
Q 9A7	260P560030	TRANSISTOR	2SA933S-R, F
Q 9A8	260P560040	TRANSISTOR	2SA933S-S
Q 9A9	260P585030	TRANSISTOR	2SD1682-T, U
Q 9B0	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 9B2	260P613010	TRANSISTOR	2SC4208A [Y, VG, VY]

DIODES

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 51	264P667010	DIODE	1SS85 [EE]
D 52	264P093080	DIODE	HZ7B3 [EE]
D 101	264P568010	DIODE	1SS252 [Y, VE, VG, VY]
D 102	264P568010	DIODE	1SS252 [Y, VE, VG, VY]
D 104	264P808010	CHIP DIODE	DAN202K [VG]
D 2A1	264P807010	DIODE	DA202K HVN21C[Y, VG, VY]
D 2A3	264P568010	DIODE	1SS252
D 2A6	264P568010	DIODE	1SS252
D 2A8	264P568010	DIODE	1SS252
D 2A9	264P568010	DIODE	1SS252 [EE, VE]
D 2B0	264P568010	DIODE	1SS252 [EE, VE]
D 2B1	264P568010	DIODE	1SS252
D 2B2	264P568010	DIODE	1SS252
D 2B3	264P568010	DIODE	1SS252
D 2B4	264P808010	CHIP DIODE	DAN202K
D 2B5	264P568010	DIODE	1SS252
D 2301	264P568010	DIODE	1SS252 [Y, VG, VY]
D 2302	264P568010	DIODE	1SS252 [Y, VG, VY]
D 2303	264P568010	DIODE	1SS252 [Y, VE, VG, VY]
D 2304	264P568010	DIODE	1SS252 [Y, VE, VG, VY]
D 2305	264P568010	DIODE	1SS252 [Y, VE, VG, VY]
D 2306	264P568010	DIODE	1SS252 [Y, VE, VG, VY]
D 2307	264P568010	DIODE	1SS252 [Y, VE, VG, VY]
D 2308	264P568010	DIODE	1SS252 [Y, VE, VG, VY]
D 2313	264P568010	DIODE	1SS252 [Y, VG, VY]
D 2315	264P568010	DIODE	1SS252 [Y, VG, VY]
D 3A0	264P568010	DIODE	1SS252
D 4A0	264P808010	CHIP DIODE	DAN202K
D 4A1	264P568010	DIODE	1SS252
D 501	264P568010	DIODE	1SS252
D 5A1	264P807010	DIODE	DA202K HVN21C
D 5A2	264P342070	DIODE	HZ4C2
D 5A4	264P808010	CHIP DIODE	DAN202K
D 5A5	264P808010	CHIP DIODE	DAN202K
D 5A6	264P568010	DIODE	1SS252
D 5A7	264P568010	DIODE	1SS252
D 5A8	264P568010	DIODE	1SS252
D 5A9	264P568010	DIODE	1SS252
D 5B0	264P808010	CHIP DIODE	DAN202K
D 5B1	264P585010	LIGHT EMITTING DIODE	LN59L.MI
D 5B2	264P568010	DIODE	1SS252
D 5B3	264P568010	DIODE	1SS252
D 5B4	264P568010	DIODE	1SS252

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 5B5	264P568010	DIODE	1SS252
D 5B6	264P568010	DIODE	1SS252
D 5B7	264P808010	CHIP DIODE	DAN202K
D 5V0	264P485050	DIODE	RD7.5FB1
D 8A1	264P568010	DIODE	1SS252
D 8A2	264P568010	DIODE	1SS252
D 8A3	264P568010	DIODE	1SS252
D 8B0	264P568010	DIODE	1SS252
D 8B1	264P568010	DIODE	1SS252
D 8B2	264P568010	DIODE	1SS252
D 8B3	264P568010	DIODE	1SS252
D 8K0	264P568010	DIODE	1SS252 [Y, VY]
D 8K1	264P568010	DIODE	1SS252 [Y, VG, VY]
D 8K2	264P568010	DIODE	1SS252 [VE]
D 8K3	264P568010	DIODE	1SS252 [EE]
D 8L0	264P568010	DIODE	1SS252 [EE, VG]
D 8L1	264P568010	DIODE	1SS252 [Y, VY]
D 8L2	264P568010	DIODE	1SS252 [Y, VY]
D 8L3	264P568010	DIODE	1SS252 [VE, VG, VY]
D 8M0	264P568010	DIODE	1SS252 [EE, VY]
D 9A1	264P101050	DIODE	RM 1B
D 9A2	264P101050	DIODE	RM 1B
D 9A3	264P101050	DIODE	RM 1B
D 9A4	264P101050	DIODE	RM 1B
D 9A5	264P101050	DIODE	RM 1B
D 9A6	264P101050	DIODE	RM 1B
D 9A7	264P101050	DIODE	RM 1B
D 9A8	264P101050	DIODE	RM 1B
D 9A9	264P500020	DIODE	EM01Z
D 9B0	264P500020	DIODE	EM01Z
D 9B1	264P104040	DIODE	HZ30-2
D 9B3	264P452030	DIODE	HZ5C3
D 9C0	264P568010	DIODE	1SS252
D 9C1	264P568010	DIODE	1SS252
D 9C2	264P568010	DIODE	1SS252
D 9C3	264P592010	DIODE	HZ18-2L
D 9C4	264P500020	DIODE	EM01Z
D 9C5	264P487080	DIODE	RD12FB2 [Y, VG, VY]

FILTERS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
CF 51	296P014020	CERAMIC FILTER	SFE-5.5M [EE]
CF 52	296P014040	CERAMIC FILTER	SFE-6.5M [EE]
CF 53	296P014030	CERAMIC FILTER	SFE-6.0MZ [EE]
CF 54	299P034040	CERAMIC RESONATOR	[EE]
CF 55	296P014020	CERAMIC FILTER	SFE-5.5M [EE]
CF101	296P014090	CERAMIC FILTER	SFE-5.5MZ [Y, VE, VG, VY]
CF102	296P104010	CERAMIC TRAP	EFC-S3F0W3A
CF103	299P051050	CERAMIC RESONATOR	CSB500F9 [Y, VE, VG, VY]
CF104	296P143020	CERAMIC RESONATOR	CDSH6.0M65 [EE]
CF104	296P143010	CERAMIC RESONATOR	CDSH5.5M65 [Y, VE, VG, VY]
SF101	296P141010	SAW FILTER	SAF38.9MB85Z
SF102	296P134040	SAW FILTER	SAF32.9MA70Z [EE]
SF102	296P134010	SAW FILTER	SAF33.0MZ70Z [Y, VE, VG, VY]

[Y] : HS – M30 (Y)
[VE] : HS – M30V (E)
[EE] : HS – M30 (EE)
[VG] : HS – M30V (G)
[VY] : HS – M30V (Y)

DELAY LINES

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
DL2A0	337P081010	DELAY LINE	CF873	

COILS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
L 01	325C121030	PEAKING COIL	10 μ H-K	
L 51	325C166020	PEAKING COIL	8. 2 μ H-J	[EE]
L 52	325C167090	PEAKING COIL	220 μ H-J	[EE]
L 53	325C168060	PEAKING COIL	820 μ H-J	[EE]
L 54	325C166030	PEAKING COIL	10 μ H-J	[EE]
L 55	325C167050	PEAKING COIL	100 μ H-J	[EE]
L 101	325C122050	PEAKING COIL	100 μ H-K	
L 102	325C165020	PEAKING COIL	1. 2 μ H-J	
L 103	325C170050	PEAKING COIL	2. 2 μ H-K SHIELD	
L 104	325C165040	PEAKING COIL	1. 8 μ H-J	[EE, VE, VG]
L 105	325C121040	PEAKING COIL	12 μ H-K	
L 106	323P191010	VIF COIL	292GJS-7145BS	
L 107	325C166070	PEAKING COIL	22 μ H-J	[EE, VG]
L 107	325C167000	PEAKING COIL	39 μ H-J	[Y, VE, VY]
L 108	323P191020	VIF COIL	292GNS-7135BS	
L 109	325C166000	PEAKING COIL	5. 6 μ H-J	
L 201	325C162050	PEAKING COIL	100 μ H-K	
L 206	325C166070	PEAKING COIL	22 μ H-J	
L 210	325C166070	PEAKING COIL	22 μ H-J	
L 211	325C166000	PEAKING COIL	5. 6 μ H-J	
L 213	325C122050	PEAKING COIL	100 μ H-K	
L 219	325C167040	PEAKING COIL	82 μ H-J	
L 220	325C167070	PEAKING COIL	150 μ H-J	
L 2A8	325C166060	PEAKING COIL	18 μ H-J	
L 2A9	325C167080	PEAKING COIL	180 μ H-J	
L 2B0	325C167030	PEAKING COIL	68 μ H-J	
L 2B1	325C166060	PEAKING COIL	18 μ H-J	
L 2B2	325C168010	PEAKING COIL	330 μ H-J	
L 2B4	325C165070	PEAKING COIL	3. 3 μ H-J	
L 2B5	325C166020	PEAKING COIL	8. 2 μ H-J	
L 2B8	321C112050	RF COIL	100 μ H-K	
L 2B9	321C112050	RF COIL	100 μ H-K	
L 2C0	325C162050	PEAKING COIL	100 μ H-K	
L 2C1	325C167010	PEAKING COIL	47 μ H-J	
L 2C2	325C166090	PEAKING COIL	33 μ H-J	
L 2C3	325C122050	PEAKING COIL	100 μ H-K	
L 2G3	325C122000	PEAKING COIL	39 μ H-K	
L 2P1	325C166090	PEAKING COIL	33 μ H-J	
L 2P5	325C166090	PEAKING COIL	33 μ H-J	
L 2P6	325C167010	PEAKING COIL	47 μ H-J	
L 2301	325C122050	PEAKING COIL	100 μ H-K	[Y, VE, VG, VY]
L 2371	325C120010	PEAKING COIL	1. 0 μ H-M	[VG]
L 2372	325C120050	PEAKING COIL	2. 2 μ H-M/K	[VG]
L 2373	325C121030	PEAKING COIL	10 μ H-K	[VG]
L 2374	325C121030	PEAKING COIL	10 μ H-K	[VG]
L 2375	325C120010	PEAKING COIL	1. 0 μ H-M	[VG]
L 2376	325C120010	PEAKING COIL	1. 0 μ H-M	[VG]
L 2377	325C120010	PEAKING COIL	1. 0 μ H-M	[VG]
L 2379	325C120050	PEAKING COIL	2. 2 μ H-M/K	[VG]
L 2380	325C121030	PEAKING COIL	10 μ H-K	[VG]
L 2381	325C121030	PEAKING COIL	10 μ H-K	[VG]
L 2382	325C120010	PEAKING COIL	1. 0 μ H-M	[VG]
L 2383	325C120010	PEAKING COIL	1. 0 μ H-M	[VG]
L 310	321C113070	RF COIL	1000 μ H-K	
L 311	321C114080	RF COIL	8200 μ H-J	
L 312	321C114080	RF COIL	8200 μ H-J	
L 501	325C122050	PEAKING COIL	100 μ H-K	
L 502	325C146050	CHIP COIL	15 μ H-J	
L 503	325C262050	PEAKING COIL	100 μ H-K	
L 507	325C266080	PEAKING COIL	27 μ H-J	
L 550	325C262050	PEAKING COIL	100 μ H-K	[EE, VE, VG]
L 551	325C110090	PEAKING COIL	4. 7 μ H-K	[EE, VE, VG]
L 5A0	325C262050	PEAKING COIL	100 μ H-K	
L 5A1	325C266070	PEAKING COIL	22 μ H-J S0	
L 901	351P038010	LINE FILTER	ELF-18D290CN	[VG]
T 51	327P052010	SIF COIL	6MHz	[EE]

TRANSFORMERS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
T 310	409P423030	AUDIO BIAS OSC	409P42301/2	
T 901	350P607030	TRANS POWER		

VARIABLE RESISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
VR101	127C381010	VR SEMIFIXED	1/5W B50kΩ-M	
VR202	127C480040	VR SEMIFIXED	1/5W B1kΩ+-25%	
VR203	127C480080	VR SEMIFIXED	1/5W B10kΩ+-25%	
VR2A0	127C380090	VR SEMIFIXED	1/5W B20kΩ-M	
VR2A1	127C390090	VR SEMIFIXED	1/5W B20kΩ-M	
VR2A2	127C380080	VR SEMIFIXED	1/5W B10kΩ-M	
VR2A3	127C380050	VR SEMIFIXED	1/5W B2kΩ-M	
VR2A5	127C380090	VR SEMIFIXED	1/5W B20kΩ-M	
VR310	127C481020	VR SEMIFIXED	1/5W B100kΩ+-25%	
VR5A0	127C381020	VR SEMIFIXED	1/5W B100kΩ-M	

RESISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
R 01	103P403070	CHIP RESISTOR	1/10W 10kΩ-J	
R 03	103P404000	CHIP RESISTOR	1/10W 18kΩ-J	
R 04	103P401020	CHIP RESISTOR	1/10W 82Ω-J	[EE, VG]
R 06	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 08	103P403070	CHIP RESISTOR	1/10W 10kΩ-J	
R 11	103P403070	CHIP RESISTOR	1/10W 10kΩ-J	
R 12	103P403070	CHIP RESISTOR	1/10W 10kΩ-J	
R 13	103P403070	CHIP RESISTOR	1/10W 10kΩ-J	
R 16	103P404000	CHIP RESISTOR	1/10W 18kΩ-J	
R 101	103P403060	CHIP RESISTOR	1/10W 8. 2kΩ-J	
R 102	103P402050	CHIP RESISTOR	1/10W 1kΩ-J	
R 103	103P402030	CHIP RESISTOR	1/10W 680Ω-J	
R 104	103P401010	CHIP RESISTOR	1/10W 68Ω-J	
R 108	103P477010	CHIP RESISTOR	1/10W 82kΩ-F	
R 110	103P476060	CHIP METAL	1/10W 51kΩ-F	
R 111	103P401030	CHIP RESISTOR	1/10W 100Ω-J	
R 112	103P402040	CHIP RESISTOR	1/10W 820Ω-J	
R 115	103P471090	CHIP RESISTOR	1/10W 560Ω-F	
R 116	103P403020	CHIP RESISTOR	1/10W 3. 9kΩ-J	
R 116	103P409050	CHIP RESISTOR	1/10W 0Ω	[Y, VE, VY] [EE, VG]

[Y] : HS – M30 (Y)　[EE] : HS – M30 (EE)　[VY] : HS – M30V (Y)
[VE] : HS – M30V (E)　[VG] : HS – M30V (G)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 117	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 118	103P470010	CHIP RESISTOR	1/10W 100Ω-F [EE, VG]
R 118	103P470050	CHIP RESISTOR	1/10W 150Ω-F [Y, VE, VY]
R 119	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 120	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 127	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 129	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J [Y, VE, VG, VY]
R 130	103P405090	CHIP RESISTOR	1/10W 680kΩ-J [Y, VE, VG, VY]
R 131	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J [Y, VE, VG, VY]
R 132	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [Y, VE, VG, VY]
R 133	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J [Y, VE, VG, VY]
R 134	103P401080	CHIP RESISTOR	1/10W 270Ω-J [Y, VE, VG, VY]
R 135	103P402010	CHIP RESISTOR	1/10W 470Ω-J [Y, VE, VG, VY]
R 136	103P405020	CHIP RESISTOR	1/10W 180kΩ-J [Y, VE, VG, VY]
R 138	103P409050	CHIP RESISTOR	1/10W 0Ω
R 140	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 200	103P409050	CHIP RESISTOR	1/10W 0Ω
R 202	103P409050	CHIP RESISTOR	1/10W 0Ω
R 204	103P409050	CHIP RESISTOR	1/10W 0Ω
R 205	103P409050	CHIP RESISTOR	1/10W 0Ω
R 206	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 207	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J
R 208	103P402000	CHIP RESISTOR	1/10W 390Ω-J
R 209	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 210	103P401020	CHIP RESISTOR	1/10W 82Ω-J
R 212	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 216	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 217	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 219	103P402040	CHIP RESISTOR	1/10W 820Ω-J
R 222	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 227	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 240	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 243	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 249	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 265	103P473030	CHIP RESISTOR	1/10W 2.2kΩ-F
R 266	103P473030	CHIP RESISTOR	1/10W 2.2kΩ-F
R 267	103P473070	CHIP RESISTOR	1/10W 3.3kΩ-F
R 268	103P473030	CHIP RESISTOR	1/10W 2.2kΩ-F
R 272	103P477050	CHIP RESISTOR	1/10W 120K
R 273	103P475070	CHIP RESISTOR	1/10W 22kΩ-F
R 274	103P476070	CHIP RESISTOR	1/10W 56kΩ-F
R 277	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 278	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 279	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 287	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 288	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2A1	103P404010	CHIP RESISTOR	1/10W 22kΩ-J [Y, VG, VY]
R 2A2	103P404070	CHIP RESISTOR	1/10W 68kΩ-J [Y, VG, VY]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 2A3	103P402070	CHIP RESISTOR	1/10W 1. 5kΩ-J [Y, VG, VY]
R 2A4	103P401030	CHIP RESISTOR	1/10W 100Ω-J [Y, VG, VY]
R 2A5	103P402030	CHIP RESISTOR	1/10W 680Ω-J [Y, VG, VY]
R 2A6	103P403010	CHIP RESISTOR	1/10W 3. 3kΩ-J [Y, VG, VY]
R 2A7	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VE]
R 2A8	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2D2	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2D3	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 2D4	103P401040	CHIP RESISTOR	1/10W 120Ω-J
R 2E1	103P403000	CHIP RESISTOR	1/10W 2. 7kΩ-J [EE, Y, VE, VY]
R 2E1	103P402070	CHIP RESISTOR	1/10W 1. 5kΩ-J [VG]
R 2E2	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 2E5	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 2E6	103P403030	CHIP RESISTOR	1/10W 4. 7kΩ-J
R 2E7	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2E8	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 2F1	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2F2	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2F3	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2F4	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 2F5	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2F6	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2F7	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 2F8	103P473080	CHIP RESISTOR	1/10W 3. 6kΩ-F
R 2G0	103P402060	CHIP RESISTOR	1/10W 1. 2kΩ-J
R 2G1	103P403020	CHIP RESISTOR	1/10W 3. 9kΩ-J
R 2G2	103P403000	CHIP RESISTOR	1/10W 2. 7kΩ-J
R 2G3	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 2G4	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2G5	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2G8	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 2H1	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2H3	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2H4	103P402060	CHIP RESISTOR	1/10W 1. 2kΩ-J
R 2H5	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2H7	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2J0	103P402060	CHIP RESISTOR	1/10W 1. 2kΩ-J
R 2J1	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2J2	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2J3	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 2J4	103P402090	CHIP RESISTOR	1/10W 2. 2kΩ-J
R 2J5	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2J6	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2J8	103P402080	CHIP RESISTOR	1/10W 1. 8kΩ-J
R 2J9	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 2K7	103P470060	CHIP RESISTOR	1/10W 160Ω-F
R 2K8	103P470090	CHIP RESISTOR	1/10W 220Ω-F
R 2M5	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 2M6	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 2N4	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2N5	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2N6	103P404010	CHIP RESISTOR	1/10W 22kΩ-J

[Y] : HS – M30 (Y)　[EE] : HS – M30 (EE)　[VY] : HS – M30V (Y)
[VE] : HS – M30V (E)　[VG] : HS – M30V (G)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 2N8	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2N9	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 2P2	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2P3	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 2P5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2P7	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 2R1	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2R4	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 2R6	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 2S3	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2S5	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 2T1	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J
R 2T2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2T3	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2T4	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2T5	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2T8	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 2T9	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 2U0	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2V0	103P401070	CHIP RESISTOR	1/10W 220Ω-J [EE, VE, VG]
R 2V1	103P402050	CHIP RESISTOR	1/10W 1kΩ-J[EE, VE, VG]
R 311	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 313	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 315	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 316	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 317	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 318	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 319	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 320	103P402040	CHIP RESISTOR	1/10W 820Ω-J
R 325	103P474080	CHIP RESISTOR	1/10W 9.1K
R 326	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 327	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 328	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 330	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 331	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 332	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 334	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 338	103P473080	CHIP RESISTOR	1/10W 3.6kΩ-F
R 339	103P473060	CHIP RESISTOR	1/10W 3kΩ-F
R 3A0	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J
R 3A1	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 3A2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3A3	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3A4	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 3A5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3A6	103P478020	CHIP RESISTOR	1/10W 240kΩ-F
R 3B0	103P404050	CHIP RESISTOR	1/10W 47kΩ-J [EE, VE]
R 3B2	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VE]
R 3B2	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J [Y, VG, VY]
R 3B3	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 3B8	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J [EE, VE]
R 4A0	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 4A5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 4A9	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 4B0	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 4B2	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 4B4	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 4B5	103P405050	CHIP RESISTOR	1/10W 330kΩ-J
R 4B6	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 4B7	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 4B8	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 4B9	103P405010	CHIP RESISTOR	1/10W 150kΩ-J
R 4C0	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 4C1	103P405010	CHIP RESISTOR	1/10W 150kΩ-J
R 4C3	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 4C6	103P405050	CHIP RESISTOR	1/10W 330kΩ-J
R 4C7	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 4C8	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 4C9	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 4D0	103P405000	CHIP RESISTOR	1/10W 120kΩ-J
R 4D1	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 4D2	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 4D3	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
R 4D4	103P405040	CHIP RESISTOR	1/10W 270kΩ-J
R 4D5	103P405000	CHIP RESISTOR	1/10W 120kΩ-J
R 4D6	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 4D7	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 4D8	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 4D9	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 4E1	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 4E2	103P472070	CHIP RESISTOR	1/10W 1.2kΩ-F
R 4E3	103P472070	CHIP RESISTOR	1/10W 1.2kΩ-F
R 4E6	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 4E7	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 4E9	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 4F0	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 4F1	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 4F2	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 4Z4	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 503	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 505	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 506	103P472060	CHIP RESISTOR	1/10W 1.1kΩ-F
R 508	103P409050	CHIP RESISTOR	1/10W 0Ω
R 509	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 510	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 511	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 512	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 513	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 520	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 521	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 527	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 528	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 530	103P402000	CHIP RESISTOR	1/10W 390Ω-J
R 532	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 551	103P404020	CHIP RESISTOR	1/10W 27kΩ-J [EE, VE, VG]
R 552	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J [EE, VE, VG]

[Y] : HS – M30 (Y)　[EE] : HS – M30 (EE)　[VY] : HS – M30V (Y)
[VE] : HS – M30V (E)　[VG] : HS – M30V (G)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 553	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [EE, VE, VG]
R 554	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [EE, VE, VG]
R 555	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [EE, VE, VG]
R 556	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VE, VG]
R 5A0	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5A1	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 5A2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5A3	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5A5	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 5A6	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5A7	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 5A8	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5A9	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 5B0	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5B1	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5B2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5B3	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 5B4	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5B5	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 5B6	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 5B7	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 5B8	103P401040	CHIP RESISTOR	1/10W 120Ω-J
R 5C0	103P404070	CHIP RESISTOR	1/10W 68kΩ-J
R 5C1	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 5C2	103P405070	CHIP RESISTOR	1/10W 470kΩ-J
R 5C3	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5C4	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5C5	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5C6	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 5C8	103P401020	CHIP RESISTOR	1/10W 82Ω-J
R 5D0	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5D2	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 5D3	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 5D4	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 5D6	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5D8	103P406090	CHIP METAL	1/10W 4.7MΩ-K
R 5E0	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 5E1	103P478020	CHIP RESISTOR	1/10W 240kΩ-F
R 5E2	103P477050	CHIP RESISTOR	1/10W 120K
R 5E3	103P476080	CHIP RESISTOR	1/10W 62kΩ-F
R 5E4	103P476000	CHIP RESISTOR	1/10W 30kΩ-F
R 5E5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5E6	103P475030	CHIP RESISTOR	1/10W 15kΩ-F
R 5E7	103P476070	CHIP RESISTOR	1/10W 56kΩ-F
R 5E8	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 5E9	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 5F0	103P405070	CHIP RESISTOR	1/10W 470kΩ-J
R 5F1	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5F6	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
R 5F8	103P473090	CHIP RESISTOR	1/10W 3.9kΩ-F
R 5G0	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 5G4	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5G5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 5G9	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 5H0	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 5H1	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 5H2	103P406090	CHIP METAL	1/10W 4.7MΩ-K
R 5H3	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5H5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5H7	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 5H8	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5J0	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 5J1	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 5J2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5J3	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J
R 5J5	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 5J6	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5J8	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 5K3	103P404030	CHIP RESISTOR	1/10W 33kΩ-J [VE, VG, VY]
R 5P0	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 5X0	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VE, VG]
R 5X6	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5X7	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 901	109D036040	COMPOSITION	1/2W 8.2MΩ-K
R 9A3	109P052010	FUSE	1/4W 100Ω-J
R 9A5	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 9A6	103P476060	CHIP METAL	1/10W 51kΩ-F
R 9A7	103P476030	CHIP RESISTOR	1/10W 39kΩ-F
R 9A9	103P475010	CHIP RESISTOR	1/10W 12kΩ-F
R 9B0	103P475030	CHIP RESISTOR	1/10W 15kΩ-F
R 9B1	109P052050	FUSE	1/4W 6.8Ω-J
R 9B3	103P405080	CHIP RESISTOR	1/10W 560kΩ-J
R 9B5	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 9C3	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
RJ 51	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ 52	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ 53	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ 54	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ 56	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ101	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ102	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ104	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ105	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ109	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ110	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ201	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ202	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ203	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ204	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ205	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ206	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ207	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ208	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ209	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ210	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ211	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ212	103P409050	CHIP RESISTOR	1/10W 0Ω

[Y] : HS – M30 (Y) [EE] : HS – M30 (EE) [VY] : HS – M30V (Y)
[VE] : HS – M30V (E) [VG] : HS – M30V (G)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
RJ213	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ214	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ215	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ216	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ217	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ218	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ220	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ221	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ222	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ223	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ224	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ225	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ226	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ227	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ229	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ230	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ231	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ232	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ233	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ401	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ402	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ403	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ404	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ501	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ502	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ503	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ504	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ505	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ506	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ507	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ509	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ510	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ511	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ512	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ513	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ514	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ516	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ517	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ518	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ519	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ521	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ522	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ523	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ524	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ525	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ526	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ527	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ528	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ529	103P409050	CHIP RESISTOR	1/10W 0Ω

CAPACITORS AND TRIMMERS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 102	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 104	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 105	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 106	154P331010	CHIP CAPACITOR	CH50V 10pF-C
C 107	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 108	141P134020	CHIP CAPACITOR	F50V 0.1μF-Z
C 109	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 112	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 114	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 116	154P321080	CHIP CAPACITOR	SL50V 18pF-J [EE, VG]
C 116	141P130090	CHIP CAPACITOR	B50V 1000pF-K [Y, VE, VY]
C 117	154P331050	CHIP CAPACITOR	CH50V 15pF-J
C 118	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 119	154P322060	CHIP CAPACITOR	SL50V 39pF-J [EE, VG]
C 119	154P321080	CHIP CAPACITOR	SL50V 18pF-J [Y, VE, VY]
C 122	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [Y, VE, VG, VY]
C 124	141P134010	CHIP CAPACITOR	F50V 0.047M [Y, VE, VG, VY]
C 126	141P131020	CHIP CAPACITOR	B50V 1800pF-K [Y, VE, VG, VY]
C 127	154P325080	CHIP CAPACITOR	SL50V 820pF [Y, VE, VG, VY]
C 130	141P130060	CHIP CAPACITOR	B50V 560pF-K
C 131	141P130060	CHIP CAPACITOR	B50V 560pF-K
C 132	141P137080	CHIP CAPACITOR	B25V 0.047M
C 201	154P323020	CHIP CAPACITOR	SL50V 68pF-J
C 207	154P323020	CHIP CAPACITOR	SL50V 68pF-J
C 209	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 210	141P137080	CHIP CAPACITOR	B25V 0.047M
C 211	141P137080	CHIP CAPACITOR	B25V 0.047M
C 215	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 216	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 220	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 221	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 227	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 231	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 232	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 233	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 234	154P323000	CHIP CAPACITOR	SL50V 56pF-J
C 236	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 237	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 240	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 243	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 244	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 245	154P323000	CHIP CAPACITOR	SL50V 56pF-J
C 246	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 249	154P323040	CHIP CAPACITOR	SL50V 82pF-J
C 255	154P322040	CHIP CAPACITOR	SL50V 33pF-J
C 256	154P324020	CHIP CAPACITOR	SL50V 180pF-J
C 275	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 276	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 2C1	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2C2	154P322060	CHIP CAPACITOR	SL50V 39pF-J
C 2C3	154P325000	CHIP CAPACITOR	SL50V 390pF-J
C 2C4	154P324020	CHIP CAPACITOR	SL50V 180pF-J
C 2C6	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2C8	154P323080	CHIP CAPACITOR	SL50V 120pF-J
C 2C9	154P324000	CHIP CAPACITOR	SL50V 150pF-J

[Y] : HS – M30 (Y)　[EE] : HS – M30 (EE)　[VY] : HS – M30V (Y)
[VE] : HS – M30V (E)　[VG] : HS – M30V (G)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
C 2D1	154P322080	CHIP CAPACITOR	SL50V 47pF-J	
C 2D3	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 2D4	154P324040	CHIP CAPACITOR	SL50V 220pF-J	
C 2D5	154P321020	CHIP CAPACITOR	SL50V 10pF-C	
C 2D7	154P325000	CHIP CAPACITOR	SL50V 390pF-J	
C 2E1	154P322000	CHIP CAPACITOR	SL50V 22pF-J	
C 2E3	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 2E4	141P137040	CHIP CAPACITOR	B25V 0.022M	
C 2F4	141P137080	CHIP CAPACITOR	B25V 0.047M	
C 2F7	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 2G2	154P321080	CHIP CAPACITOR	SL50V 18pF-J	
C 2G5	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 2G7	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 2H0	154P322020	CHIP CAPACITOR	SL50V 27pF-J	
C 2H1	154P322040	CHIP CAPACITOR	SL50V 33pF-J	
C 2H2	154P320080	CHIP CAPACITOR	SL50V 6pF-C	
C 2H3	154P322080	CHIP CAPACITOR	SL50V 47pF-J	
C 2H7	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 2K1	154P324080	CHIP CAPACITOR	SL50V 330pF-J	[EE]
C 2P2	154P322060	CHIP CAPACITOR	SL50V 39pF-J	
C 2P3	154P323020	CHIP CAPACITOR	SL50V 68pF-J	
C 2P8	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 2R0	154P322020	CHIP CAPACITOR	SL50V 27pF-J	
C 2R2	141P137040	CHIP CAPACITOR	B25V0.022M	
C 2R3	141P137080	CHIP CAPACITOR	B25V 0.047M	
C 2R4	154P323060	CHIP CAPACITOR	SL50V 100pF-J	
C 2R5	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 310	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 311	141P130080	CHIP CAPACITOR	B50V 820pF-K	
C 318	141P131080	CHIP CAPACITOR	B50V 5600pF-K	
C 328	141P130060	CHIP CAPACITOR	B50V 560pF-K	
C 331	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 338	141P136030	CHIP CAPACITOR	F16V 1μF-Z	
C 345	141P130090	CHIP CAPACITOR	B50V 1000pF-K	[VG]
C 3A2	141P138040	CHIP CAPACITOR	B25V 0.15μF-K	
C 3A3	141P138040	CHIP CAPACITOR	B25V 0.15μF-K	
C 3B4	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 4A3	141P137070	CHIP CAPACITOR	B25V 0.039μF-K	
C 4A5	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 4A7	154P324020	CHIP CAPACITOR	SL50V 180pF-J	
C 4A9	141P131060	CHIP CAPACITOR	B50V 3900pF-K	
C 4B3	141P133090	CHIP CAPACITOR	F50V 0.022M	
C 4B4	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 4B6	141P131010	CHIP CAPACITOR	B50V 1500pF	
C 4C1	141P131050	CHIP CAPACITOR	B50V 3300pF-K	
C 4C2	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 4C3	141P139010	CHIP CAPACITOR	B25V 0.068μF-K	
C 4C4	141P131080	CHIP CAPACITOR	B50V 5600pF-K	
C 4C5	141P131080	CHIP CAPACITOR	B50V 5600pF-K	
C 4C6	141P139000	CHIP CAPACITOR	B25V 0.056μF-K	
C 4C9	141P130090	CHIP CAPACITOR	B50V 1000pF-K	
C 4D5	141P130090	CHIP CAPACITOR	B50V 1000pF-K	
C 4E0	141P130090	CHIP CAPACITOR	B50V 1000pF-K	
C 501	154P330060	CHIP CAPACITOR	CH50V 5pF-C	
C 502	154P330060	CHIP CAPACITOR	CH50V 5pF-C	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
C 505	154P331090	CHIP CAPACITOR	CH50V 22pF-J	
C 507	154P331090	CHIP CAPACITOR	CH50V 22pF-J	
C 510	141P137080	CHIP CAPACITOR	B25V 0.047M	
C 512	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 514	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 525	154P322080	CHIP CAPACITOR	SL50V 47pF-J	
C 551	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	[EE, VE, VG]
C 552	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	[EE, VE, VG]
C 554	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	[EE, VE, VG]
C 555	141P130090	CHIP CAPACITOR	B50V 1000pF-K	[EE, VE, VG]
C 556	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	[EE, VE, VG]
C 557	154P331010	CHIP CAPACITOR	CH50V 10pF-C	[EE, VE, VG]
C 558	154P331050	CHIP CAPACITOR	CH50V 15pF-J	[EE, VE, VG]
C 5A0	189P197020	C-ELE-DOUBLE-LAYER	AC310G473Z5R5	
C 5A3	154P331090	CHIP CAPACITOR	CH50V 22pF-J	
C 5A4	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 5A5	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 5A6	141P130060	CHIP CAPACITOR	B50V 560pF-K	
C 5A7	154P324060	CHIP CAPACITOR	SL50V 270pF-J	
C 5A8	154P333010	CHIP CAPACITOR	CH50V 68pF-J	
C 5B0	141P131090	CHIP CAPACITOR	B50V 6800pF-K	
C 5B3	141P131030	CHIP CAPACITOR	B50V 2200pF-K	
C 5B5	141P131010	CHIP CAPACITOR	B50V 1500pF	
C 5B6	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 5B7	141P132000	CHIP CAPACITOR	B50V 8200pF-K	
C 5D2	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 5D5	141P135080	CHIP CAPACITOR	F25V 0.1μF-Z	
C 5D6	141P134010	CHIP CAPACITOR	F50V 0.047M	
C 5D7	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 5D8	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 5E3	141P133090	CHIP CAPACITOR	F50V 0.022M	
C 5E4	141P133090	CHIP CAPACITOR	F50V 0.022M	
C 5F0	141P134020	CHIP CAPACITOR	F50V 0.1μF-Z	
C 5F1	154P331010	CHIP CAPACITOR	CH50V 10pF-C	
C 5F2	154P331090	CHIP CAPACITOR	CH50V 22pF-J	
C 5F3	154P331010	CHIP CAPACITOR	CH50V 10pF-C	
C 5F4	141P134010	CHIP CAPACITOR	F50V 0.047M	
C 901	189P153040	C-METAL-P-FILM	AC250V 0.1μF-M	[VG]
C 902	189P153040	C-METAL-P-FILM	AC250V 0.1μF-M	[VG]
C 9A9	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 9C0	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 9C1	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	

SWITCHES

S 5A0	439P033010	SWITCH	RIS MPU10101MMBO
S 5A1	432P166010	KEY BOARD SWITCH	RESET
S 8A1	432P089040	KEY BOARD SWITCH	STOP
S 8A2	432P089040	KEY BOARD SWITCH	POWER
S 8A3	432P089020	KEY BOARD SWITCH	FF

[Y] : HS – M30 (Y) [EE] : HS – M30 (EE) [VY] : HS – M30V (Y)
[VE] : HS – M30V (E) [VG] : HS – M30V (G)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
S 8B1	432P089040	KEY BOARD SWITCH	PLAY
S 8B2	432P089040	KEY BOARD SWITCH	EJECT
S 8B3	432P089020	KEY BOARD SWITCH	REW
S 8C1	432P089020	KEY BOARD SWITCH	REC/OTR
S 8C2	432P089040	KEY BOARD SWITCH	ONE KEY PROGRAM
S 8C3	432P089040	KEY BOARD SWITCH	CH-DOWN
S 8D1	432P089020	KEY BOARD SWITCH	PAUSE
S 8D2	432P089040	KEY BOARD SWITCH	RENT PB
S 8D3	432P089040	KEY BOARD SWITCH	CH-UP

MISCELLANEOUS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
	243C125010	CARD LEAD	9P L=50 REV
CU 01	295P407020	RF CONVERTER	[EE]
CU 01	295D059010	RF CONVERTER	[Y, VE, VG, VY]
F 901	283D046080	FUSE	T630MA
F 902	283D047050	FUSE	T2. 5A
F 903	283D047050	FUSE	T2. 5A
J 2301	451C058020	CONNECTOR	21P [Y, VE, VG, VY]
J 2302	451C058020	CONNECTOR	21P [Y, VE, VG, VY]
M 470	288P126010	MOTOR CAPSTAN	F2QKB79
M 570	288P088060	MOTOR DRUM	DC12V 3. 3W
M 571	288D034010	MOTOR LOADING ASSY	
MK TK	243C094080	CARD LEAD	29P L210(MK-TK)
P 5A0	286P010010	BUZZER	PKM22EPT-2001
S 570	439P031010	MODE SELECT SWITCH	(J)
T 370	460P060060	A/C HEAD	
T 371	460P153010	FULL ERASE HEAD	
TU 01	295P417010	TUNER	ENV-578E7F1 [EE, VG]
TU 01	295P418010	TUNER	TEKE4-071A [Y, VE, VY]
V 8A0	253P112020	TUBE FLUOR	10-MT-67GAK
X 2A0	285P083010	CRYSTAL RESONATOR	4. 43362MHz
X 501	285P084010	CRYSTAL RESONATOR	17. 7345MHz
X 551	285P166020	CRYSTAL RESONATOR	27MHz [EE, VE]
X 570	285P166020	CRYSTAL RESONATOR	27MHz [VG]
X 5A0	285P054030	CRYSTAL RESONATOR	32. 8kHz
X 5A1	285P235010	CRYSTAL RESONATOR	8. 3886MHz
Z 8A0	939P580010	PREAMP UNIT	TFMT 5330

PRINTED CIRCUIT BOARD ASSY'S

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
	928C863003	CONNECTOR PCB ASSY	[Y, VY]
	928C863001	CONNECTOR PCB ASSY	[VE]
	928C864001	CONNECTOR-G PCB ASSY	[VG]
	927B800004	HA/AUDIO PCB ASSY	[EE, Y, VE, VY]
	927B800005	HA/AUDIO PCB ASSY	[VG]
	927B798009	MAIN PCB ASSY	[EE]
	927B798005	MAIN PCB ASSY	[Y]
	927B798006	MAIN PCB ASSY	[VE]
	927B798010	MAIN PCB ASSY	[VG]
	927B798007	MAIN PCB ASSY	[VY]
	928C873001	SIF PCB ASSY	[EE]
	927B799009	TIMER PCB ASSY	[EE]
	927B799005	TIMER PCB ASSY	[Y]
	927B799006	TIMER PCB ASSY	[VE]
	927B799010	TIMER PCB ASSY	[VG]
	927B799007	TIMER PCB ASSY	[VY]

3. ELECTRICAL PARTS

[EE] : HS – M40 (EE)
[VB] : HS – M40V (B)
[VE] : HS – M40V (E)
[VG] : HS – M40V (G)
[VY] : HS – M40V (Y)
[VIR] : HS – M40V (IR)

INTEGRATED CIRCUITS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
IC 51	266P323010	IC	M5144P [EE]
IC101	270P184010	IC	M52318SP
IC102	266P192010	IC	LA7910 [EE, VE, VG, VIR, VY]
IC103	272P654010	IC	M51497L [VE, VG, VY]
IC201	272P221010	IC	BA7254S
IC2A0	270P195010	IC	LA7346
IC2A1	272P702010	IC	LC8992
IC2A3	270P067010	IC	BA7645N [EE, VB, VE, VIR]
IC2301	270P167020	IC	LA7156-S [VG, VY]
IC2302	272P265010	IC	BA7021 [VG, VY]
IC2303	272P400010	IC	NJM2233BL [VG, VY]
IC310	272P234010	IC	LA7295
IC3B0	270P046010	IC	BA7644AN [EE, VB, VE, VIR]
IC4A0	274P318070	IC	MN67492MSX5
IC4A1	272P079010	IC	NJM2902M
IC501	274P573010	IC	M35013-050SP
IC551	270P185010	IC	SAA5233T [EE, VE, VG]
IC570	274P315010	IC	LC3517BML-15 [VB]
IC571	270P216010	IC	SAA5246AGP [VB]
IC5A0	274P551030	IC	M38185ME-053FP[EE, VE, VG]
IC5A0	274P551050	IC	M38185ME-066FP [VB, VIR]
IC5A0	274P551040	IC	M38185ME-062FP [VY]
IC5A1	263P593010	IC	CAT35C104P
IC5A2	272P235010	IC	TA7291S
IC5A3	272P204010	IC	LM2904M
IC5A4	266P010020	IC	μPC574J-K
IC5A5	270P070010	IC	AT93C56-10PC [VE, VG, VY]
IC5A5	263P593010	IC	CAT35C104P [VB]
IC651	272P494010	IC	M52063SP [VE, VG, VIR, VY]
IC9A0	272P237010	IC	LA6324N

TRANSISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 51	260P419030	TRANSISTOR	2SC2724-D [EE]
Q 52	260P419030	TRANSISTOR	2SC2724-D [EE]
Q 53	260P419030	TRANSISTOR	2SC2724-D [EE]
Q 54	260P560040	TRANSISTOR	2SA933S-S [EE]
Q 55	260P419030	TRANSISTOR	2SC2724-D [EE]
Q 101	260P874010	CHIP TRANSISTOR	2SC3082K-P, Q
Q 102	260P560040	TRANSISTOR	2SA933S-S
Q 103	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 106	260P808010	CHIP TRANSISTOR	DTC114EK [VE, VG, VY]
Q 107	260P802020	CHIP TRANSISTOR	2SA1235-F [VE, VG, VY]
Q 108	260P807010	CHIP TRANSISTOR	UN2212
Q 208	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 210	260P807010	CHIP TRANSISTOR	UN2212
Q 211	260P807010	CHIP TRANSISTOR	UN2212
Q 260	260P807010	CHIP TRANSISTOR	UN2212
Q 261	260P807010	CHIP TRANSISTOR	UN2212
Q 262	260P807010	CHIP TRANSISTOR	UN2212
Q 2A0	260P802020	CHIP TRANSISTOR	2SA1235-F [EE, VB, VE, VIR]
Q 2A1	260P805030	CHIP TRANSISTOR	2SC3053-D [VG, VY]
Q 2A2	260P805030	CHIP TRANSISTOR	2SC3053-D [VG, VY]
Q 2B1	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B5	260P807010	CHIP TRANSISTOR	UN2212
Q 2B6	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B8	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2B9	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2C0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2C3	260P806010	CHIP TRANSISTOR	DTA124EK
Q 2C4	260P806010	CHIP TRANSISTOR	DTA124EK
Q 2C5	260P807010	CHIP TRANSISTOR	UN2212
Q 2C8	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2D0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2D1	260P807010	CHIP TRANSISTOR	UN2212 [VG, VY]
Q 2D4	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2D5	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2D6	260P560040	TRANSISTOR	2SA933S-S [EE, VB, VE, VG, VY]
Q 2D6	260P255040	TRANSISTOR	2SA950-Y [VIR]
Q 2D7	260P807010	CHIP TRANSISTOR	UN2212
Q 2D9	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2E0	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2E1	260P562040	TRANSISTOR	2SA952-K
Q 2E3	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2P0	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 2P1	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2P2	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2P3	260P806010	CHIP TRANSISTOR	DTA124EK [VE, VG, VIR, VY]
Q 2P4	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 2P5	260P807010	CHIP TRANSISTOR	UN2212
Q 2P6	260P806010	CHIP TRANSISTOR	DTA124EK
Q 2P7	260P807010	CHIP TRANSISTOR	UN2212
Q 2V0	260P802020	CHIP TRANSISTOR	2SA1235-F [EE, VB, VE, VG]
Q 2301	260C676040	TRANSISTOR	2SC3311A-R, S [VG, VY]
Q 2304	260P603010	TRANSISTOR	UN4112 [VG, VY]
Q 310	260P629060	TRANSISTOR	2SC3331-S
Q 3A0	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 3A1	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 4A0	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 4A2	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 4A3	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 4A4	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 4A7	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 4A8	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 501	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 502	260P807010	CHIP TRANSISTOR	UN2212
Q 503	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 506	260P802020	CHIP TRANSISTOR	2SA1235-F [EE, VE, VG, VY]
Q 508	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5A1	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5A2	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5A3	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5A4	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5A5	260P805030	CHIP TRANSISTOR	2SC3053-D
Q 5A6	260P807010	CHIP TRANSISTOR	UN2212
Q 5A7	260P807010	CHIP TRANSISTOR	UN2212
Q 5A8	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5A9	260P806010	CHIP TRANSISTOR	DTA124EK

[EE] : HS – M40 (EE) [VB] : HS – M40V (B) [VE] : HS – M40V (E)
[VG] : HS – M40V (G) [VY] : HS – M40V (Y) [VIR] : HS – M40V (IR)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 5B0	260P806010	CHIP TRANSISTOR	DTA124EK
Q 5B1	260P807010	CHIP TRANSISTOR	UN2212
Q 5B2	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5B3	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 5B5	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 5B6	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 5B7	260P807010	CHIP TRANSISTOR	UN2212
Q 5B8	260P806010	CHIP TRANSISTOR	DTA124EK
Q 5C0	260P804030	CHIP TRANSISTOR	2SC3052-G
Q 5C1	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5C2	260P807010	CHIP TRANSISTOR	UN2212
Q 5C3	260P804020	CHIP TRANSISTOR	2SC3052-F
Q 5E1	268P014030	PHOTO TRANSISTOR	PN205L-(NC).MI2
Q 5E2	268P014030	PHOTO TRANSISTOR	PN205L-(NC).MI2
Q 5E3	268P059010	PHOTO INTERRUPTER	RPI-244
Q 5E4	268P059010	PHOTO INTERRUPTER	RPI-244
Q 6M1	260P654020	TRANSISTOR	2SC2058S-P[VE, VG, VIR, VY]
Q 6M3	260P603010	TRANSISTOR	UN4112 [VE, VG, VIR, VY]
Q 9A1	260C628010	TRANSISTOR	2SA1619A-Q
Q 9A2	260P640040	TRANSISTOR	2SD1762-E
Q 9A3	260P640040	TRANSISTOR	2SD1762-E
Q 9A4	260P640040	TRANSISTOR	2SD1762-E
Q 9A5	260P613010	TRANSISTOR	2SC4208A
Q 9A7	260P560030	TRANSISTOR	2SA933S-R, F
Q 9A8	260P560040	TRANSISTOR	2SA933S-S
Q 9A9	260P585030	TRANSISTOR	2SD1682-T, U
Q 9B0	260P802020	CHIP TRANSISTOR	2SA1235-F
Q 9B2	260P613010	TRANSISTOR	2SC4208A [VG, VY]

DIODES

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 51	264P667010	DIODE	1SS85 [EE]
D 52	264P093080	DIODE	HZ7B3 [EE]
D 101	264P568010	DIODE	1SS252 [VE, VG, VY]
D 102	264P568010	DIODE	1SS252 [VE, VG, VY]
D 104	264P808010	CHIP DIODE	DAN202K [VG]
D 202	264P568010	DIODE	1SS252
D 2A1	264P807010	DIODE	DA202K HVN21C [VG, VY]
D 2A3	264P568010	DIODE	1SS252
D 2A6	264P568010	DIODE	1SS252 [EE, VE, VG, VY]
D 2A8	264P568010	DIODE	1SS252
D 2A9	264P568010	DIODE	1SS252 [EE, VB]
D 2B0	264P568010	DIODE	1SS252 [EE, VB]
D 2B1	264P568010	DIODE	1SS252
D 2B2	264P568010	DIODE	1SS252
D 2B3	264P568010	DIODE	1SS252
D 2B4	264P808010	CHIP DIODE	DAN202K
D 2B5	264P568010	DIODE	1SS252 [EE, VE, VG, VIR, VY]
D 2D0	264P568010	DIODE	1SS252
D 2301	264P568010	DIODE	1SS252 [VG, VY]
D 2302	264P568010	DIODE	1SS252 [VG, VY]
D 2303	264P568010	DIODE	1SS252 [VB, VE, VG, VIR, VY]
D 2304	264P568010	DIODE	1SS252 [VB, VE, VG, VIR, VY]
D 2305	264P568010	DIODE	1SS252 [VB, VE, VG, VIR, VY]
D 2306	264P568010	DIODE	1SS252 [VB, VE, VG, VIR, VY]
D 2307	264P568010	DIODE	1SS252 [VB, VE, VG, VIR, VY]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 2308	264P568010	DIODE	1SS252 [VB, VE, VG, VIR, VY]
D 2309	264P568010	DIODE	1SS252 [VG, VY]
D 2310	264P568010	DIODE	1SS252 [VG, VY]
D 2311	264P568010	DIODE	1SS252 [VG, VY]
D 2312	264P568010	DIODE	1SS252 [VG, VY]
D 2313	264P568010	DIODE	1SS252 [VG, VY]
D 2315	264P568010	DIODE	1SS252 [VG, VY]
D 3A0	264P568010	DIODE	1SS252
D 4A0	264P808010	CHIP DIODE	DAN202K
D 4A1	264P568010	DIODE	1SS252
D 501	264P568010	DIODE	1SS252
D 5A1	264P807010	DIODE	DA202K HVN21C
D 5A2	264P342070	DIODE	HZ4C2
D 5A4	264P808010	CHIP DIODE	DAN202K
D 5A5	264P808010	CHIP DIODE	DAN202K
D 5A6	264P568010	DIODE	1SS252
D 5A7	264P568010	DIODE	1SS252
D 5A8	264P568010	DIODE	1SS252
D 5A9	264P568010	DIODE	1SS252
D 5B0	264P808010	CHIP DIODE	DAN202K
D 5B1	264P585010	LIGHT EMITTING DIODE	LN59L.MI
D 5B2	264P568010	DIODE	1SS252
D 5B3	264P568010	DIODE	1SS252
D 5B4	264P568010	DIODE	1SS252
D 5B5	264P568010	DIODE	1SS252
D 5B6	264P568010	DIODE	1SS252
D 5B7	264P808010	CHIP DIODE	DAN202K
D 5V0	264P485050	DIODE	RD7.5FB1
D 8A1	264P568010	DIODE	1SS252
D 8A2	264P568010	DIODE	1SS252
D 8A4	264P568010	DIODE	1SS252 [VB]
D 8B0	264P568010	DIODE	1SS252
D 8B1	264P568010	DIODE	1SS252
D 8B2	264P568010	DIODE	1SS252
D 8B3	264P568010	DIODE	1SS252
D 8E1	264P568010	DIODE	1SS252
D 8E2	264P568010	DIODE	1SS252
D 8E3	264P568010	DIODE	1SS252
D 8E4	264P568010	DIODE	1SS252
D 8J0	264P568010	DIODE	1SS252
D 8J1	264P568010	DIODE	1SS252
D 8J2	264P568010	DIODE	1SS252
D 8J7	264P568010	DIODE	1SS252
D 8J8	264P568010	DIODE	1SS252
D 8K0	264P568010	DIODE	1SS252 [VB, VY]
D 8K1	264P568010	DIODE	1SS252 [VG, VY]
D 8K2	264P568010	DIODE	1SS252 [VB, VE, VIR]
D 8K3	264P568010	DIODE	1SS252 [EE]
D 8L0	264P568010	DIODE	1SS252 [EE, VG]
D 8L1	264P568010	DIODE	1SS252 [VY]
D 8L2	264P568010	DIODE	1SS252 [VY]
D 8L3	264P568010	DIODE	1SS252 [VE, VG, VY]
D 8M0	264P568010	DIODE	1SS252 [EE, VY]
D 8M1	264P568010	DIODE	1SS252
D 9A1	264P101050	DIODE	RM 1B

[EE] : HS – M40 (EE) [VB] : HS – M40V (B) [VE] : HS – M40V (E)
[VG] : HS – M40V (G) [VY] : HS – M40V (Y) [VIR] : HS – M40V (IR)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 9A2	264P101050	DIODE	RM 1B
D 9A3	264P101050	DIODE	RM 1B
D 9A4	264P101050	DIODE	RM 1B
D 9A5	264P101050	DIODE	RM 1B
D 9A6	264P101050	DIODE	RM 1B
D 9A7	264P101050	DIODE	RM 1B
D 9A8	264P101050	DIODE	RM 1B
D 9A9	264P500020	DIODE	EM01Z
D 9B0	264P500020	DIODE	EM01Z
D 9B1	264P104040	DIODE	HZ30-2
D 9B3	264P452030	DIODE	HZ5C3
D 9C0	264P568010	DIODE	1SS252
D 9C1	264P568010	DIODE	1SS252
D 9C2	264P568010	DIODE	1SS252
D 9C3	264P592010	DIODE	HZ18-2L
D 9C4	264P500020	DIODE	EM01Z
D 9C5	264P487080	DIODE	RD12FB2 [VG, VY]

FILTERS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
CF 51	296P014020	CERAMIC FILTER	SFE-5.5MA [EE]
CF 52	296P014040	CERAMIC FILTER	SFE-6.5MA [EE]
CF 53	296P014030	CERAMIC FILTER	SFE-6.0MHz [EE]
CF 54	299P034040	CERAMIC RESONATOR	[EE]
CF 55	296P014020	CERAMIC FILTER	SFE-5.5MA [EE]
CF101	296P014030	CERAMIC FILTER	SFE-6.0MHz [VB, VIR]
CF101	296P014090	CERAMIC FILTER	SFE-5.5MC2 [VE, VG, VY]
CF102	296P104010	CERAMIC TRAP	EFC-S3F01W3A [EE, VE, VG, VY]
CF102	296P024040	CERAMIC TRAP	TPS6.0MB [VB, VIR]
CF103	299P051050	CERAMIC RESONATOR	CSB500F9 [VE, VG, VY]
CF104	296P143020	CERAMIC RESONATOR	CDSH6.0ME65 [EE, VB, VIR]
CF104	296P143010	CERAMIC RESONATOR	CDSH5.5ME65 [VE, VG, VY]
DL6A1	337P191010	COMB FILTER	ADL-FN1344M [VE, VG, VIR, VY]
SF101	296P141010	SAW FILTER	SAF38.9MVB85Z [EE, VE, VG, VY]
SF101	296P141020	SAW FILTER	SAF39.5MVA80Z [VB, VIR]
SF102	296P134040	SAW FILTER	SAF32.9MCA70Z [EE]
SF102	296P134020	SAW FILTER	SAF32.9MC70Z [VB, VIR]
SF102	296P134010	SAW FILTER	SAF33.0MC70Z [VE, VG, VY]

DELAY LINES

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
DL2A0	337P081010	DELAY LINE	CF873

COILS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
L 01	325C121030	PEAKING COIL	10μH-K
L 51	325C166020	PEAKING COIL	8.2μH-J [EE]
L 52	325C167090	PEAKING COIL	220μH-J [EE]
L 53	325C168060	PEAKING COIL	820μH-J [EE]
L 54	325C166030	PEAKING COIL	10μH-J [EE]
L 55	325C167050	PEAKING COIL	100μH-J [EE]
L 101	325C122050	PEAKING COIL	100μH-K
L 102	325C165020	PEAKING COIL	1.2μH-J
L 103	325C170050	PEAKING COIL	2.2μH-K SHIELD
L 104	325C165040	PEAKING COIL	1.8μH-J [EE, VB, VE, VG, VIR]
L 105	325C121040	PEAKING COIL	12μH-K
L 106	323P191010	VIF COIL	292GJS-7145BS
L 107	325C166070	PEAKING COIL	22μH-J [EE, VG]
L 107	325C167020	PEAKING COIL	56μH-J [VB, VIR]
L 107	325C167000	PEAKING COIL	39μH-J [VE, VY]
L 108	323P191020	VIF COIL	292GNS-7135BS
L 109	325C166000	PEAKING COIL	5.6μH-J [EE, VE, VG, VY]
L 109	325C166020	PEAKING COIL	8.2μH-J [VB, VIR]
L 201	325C162050	PEAKING COIL	100μH-K
L 206	325C166070	PEAKING COIL	22μH-J
L 210	325C166070	PEAKING COIL	22μH-J
L 211	325C166000	PEAKING COIL	5.6μH-J
L 213	325C122050	PEAKING COIL	100μH-K
L 219	325C167040	PEAKING COIL	82μH-J
L 220	325C167070	PEAKING COIL	150μH-J
L 2A8	325C166060	PEAKING COIL	18μH-J
L 2A9	325C167080	PEAKING COIL	180μH-J
L 2B0	325C166090	PEAKING COIL	33μH-J
L 2B1	325C166060	PEAKING COIL	18μH-J
L 2B2	325C168010	PEAKING COIL	330μH-J
L 2B4	325C165070	PEAKING COIL	3.3μH-J
L 2B5	325C166020	PEAKING COIL	8.2μH-J
L 2B8	321C112050	RF COIL	100μH-K
L 2B9	321C112050	RF COIL	100μH-K
L 2C0	325C162050	PEAKING COIL	100μH-K
L 2C1	325C167010	PEAKING COIL	47μH-J
L 2C2	325C166090	PEAKING COIL	33μH-J
L 2C3	325C122050	PEAKING COIL	100μH-K
L 2G3	325C122000	PEAKING COIL	39μH-K
L 2P1	325C166090	PEAKING COIL	33μH-J
L 2P5	325C166090	PEAKING COIL	33μH-J
L 2P6	325C167010	PEAKING COIL	47μH-J
L 2301	325C122050	PEAKING COIL	100μH-K [VB, VE, VG, VIR, VY]
L 2371	325C120010	PEAKING COIL	1.0μH-M [VG]
L 2372	325C120050	PEAKING COIL	2.2μH-M/K [VG]
L 2373	325C121030	PEAKING COIL	10μH-K [VG]
L 2374	325C121030	PEAKING COIL	10μH-K [VG]
L 2375	325C120010	PEAKING COIL	1.0μH-M [VG]
L 2376	325C120010	PEAKING COIL	1.0μH-M [VG]
L 2377	325C120010	PEAKING COIL	1.0μH-M [VG]
L 2379	325C120050	PEAKING COIL	2.2μH-M/K [VG]
L 2380	325C121030	PEAKING COIL	10μH-K [VG]
L 2381	325C121030	PEAKING COIL	10μH-K [VG]
L 2382	325C120010	PEAKING COIL	1.0μH-M [VG]
L 2383	325C120010	PEAKING COIL	1.0μH-M [VG]
L 310	321C113070	RF COIL	1000μH-K
L 311	321C114080	RF COIL	8200μH-J
L 312	321C114080	RF COIL	8200μH-J
L 501	325C122050	PEAKING COIL	100μH-K
L 502	325C146050	CHIP COIL	15μH-J
L 503	325C262050	PEAKING COIL	100μH-K
L 507	325C266080	PEAKING COIL	27μH-J [EE, VE, VG, VY]
L 550	325C262050	PEAKING COIL	100μH-K [EE, VE, VG]
L 551	325C110090	PEAKING COIL	4.7μH-K [EE, VE, VG]

[EE] : HS – M40 (EE)   [VB] : HS – M40V (B)   [VE] : HS – M40V (E)
[VG] : HS – M40V (G)   [VY] : HS – M40V (Y)   [VIR] : HS – M40V (IR)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
L 570	325C262050	PEAKING COIL	100μH-K [VB]
L 571	325C262050	PEAKING COIL	100μH-K [VB]
L 572	325C110090	PEAKING COIL	4.7μH-K [VB]
L 5A0	325C262050	PEAKING COIL	100μH-K
L 5A1	325C266070	PEAKING COIL	22μH-J SO
L 651	325C122050	PEAKING COIL	100μH-K [VE, VG, VIR, VY]
L 6K0	325C166050	PEAKING COIL	15μH-J [VE, VG, VIR, VY]
L 6K1	325C166050	PEAKING COIL	15μH-J [VE, VG, VIR, VY]
L 901	351P038010	LINE FILTER	ELF-18D290CN [VG]
T 51	327P052010	SIF COIL	6MHz [EE]

TRANSFORMERS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
T 310	409P423030	AUDIO BIAS OSC	409P42301/2
T 901	350P607030	TRANS POWER	

VARIABLE RESISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
VR101	127C381010	VR SEMIFIXED	1/5W B50kΩ-M
VR202	127C480040	VR SEMIFIXED	1/5W B1kΩ+-25%
VR203	127C480080	VR SEMIFIXED	1/5W B10kΩ+-25%
VR2A0	127C380090	VR SEMIFIXED	1/5W B20kΩ-M
VR2A1	127C390090	VR SEMIFIXED	1/5W B20kΩ-M
VR2A2	127C380080	VR SEMIFIXED	1/5W B10kΩ-M
VR2A3	127C380050	VR SEMIFIXED	1/5W B2kΩ-M
VR2A5	127C380090	VR SEMIFIXED	1/5W B20kΩ-M
VR310	127C481020	VR SEMIFIXED	1/5W B100kΩ+-25%
VR5A0	127C381020	VR SEMIFIXED	1/5W B100kΩ-M
VR652	127C190080	VR SEMIFIXED	1/5W B10kΩ-M [VE, VG, VIR, VY]

RESISTORS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 01	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 03	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 04	103P401020	CHIP RESISTOR	1/10W 82Ω-J [EE, VB, VG, VIR]
R 06	103P409050	CHIP RESISTOR	1/10W 0Ω
R 08	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 11	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 12	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [EE, VE, VG, VIR, VY]
R 13	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [EE, VE, VG, VIR, VY]
R 16	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 101	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 102	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 103	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 104	103P401010	CHIP RESISTOR	1/10W 68Ω-J
R 108	103P477010	CHIP RESISTOR	1/10W 82kΩ-F
R 110	103P476060	CHIP METAL	1/10W 51kΩ-F
R 111	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 112	103P402040	CHIP RESISTOR	1/10W 820Ω-J
R 115	103P471090	CHIP RESISTOR	1/10W 560Ω-F
R 116	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VG]
R 116	103P404090	CHIP RESISTOR	1/10W 100kΩ-J [VB]
R 116	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J [VE, VIR, VY]
R 117	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 118	103P470010	CHIP RESISTOR	1/10W 100Ω-F [EE, VG]
R 118	103P471050	CHIP RESISTOR	1/10W 390Ω-F [VB]
R 118	103P470050	CHIP RESISTOR	1/10W 150Ω-F [VE, VY]
R 118	103P471030	CHIP RESISTOR	1/10W 330Ω-F [VIR]
R 119	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 120	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 127	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 129	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J[VE, VG, VY]
R 130	103P405090	CHIP RESISTOR	1/10W 680kΩ-J[VE, VG, VY]
R 131	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J[VE, VG, VY]
R 132	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [VE, VG, VY]
R 133	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J[VE, VG, VY]
R 134	103P401080	CHIP RESISTOR	1/10W 270Ω-J [VE, VG, VY]
R 135	103P402010	CHIP RESISTOR	1/10W 470Ω-J [VE, VG, VY]
R 136	103P405020	CHIP RESISTOR	1/10W 180kΩ-J[VE, VG, VY]
R 138	103P409050	CHIP RESISTOR	1/10W 0Ω
R 140	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 201	103P409050	CHIP RESISTOR	1/10W 0Ω
R 203	103P409050	CHIP RESISTOR	1/10W 0Ω
R 206	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 207	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J
R 208	103P402000	CHIP RESISTOR	1/10W 390Ω-J
R 209	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 210	103P401020	CHIP RESISTOR	1/10W 82Ω-J
R 211	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 212	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 216	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 217	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 218	103P402000	CHIP RESISTOR	1/10W 390Ω-J
R 219	103P402000	CHIP RESISTOR	1/10W 390Ω-J
R 222	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 227	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 240	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 242	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 243	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 249	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 265	103P473030	CHIP RESISTOR	1/10W 2.2kΩ-F
R 266	103P473030	CHIP RESISTOR	1/10W 2.2kΩ-F
R 267	103P473070	CHIP RESISTOR	1/10W 3.3kΩ-F
R 268	103P473030	CHIP RESISTOR	1/10W 2.2kΩ-F
R 272	103P477050	CHIP RESISTOR	1/10W 120K
R 273	103P475070	CHIP RESISTOR	1/10W 22kΩ-F
R 274	103P476070	CHIP RESISTOR	1/10W 56kΩ-F
R 277	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 278	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 279	103P474090	CHIP RESISTOR	1/10W 10kΩ-F
R 285	103P405070	CHIP RESISTOR	1/10W 470kΩ-J
R 286	103P405000	CHIP RESISTOR	1/10W 120kΩ-J
R 287	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 288	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 299	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2A0	103P402050	CHIP RESISTOR	1/10W 1kΩ-J [EE, VB, VE, VIR]
R 2A1	103P404010	CHIP RESISTOR	1/10W 22kΩ-J [VG, VY]

[EE] : HS – M40 (EE)　[VB] : HS – M40V (B)　[VE] : HS – M40V (E)
[VG] : HS – M40V (G)　[VY] : HS – M40V (Y)　[VIR] : HS – M40V (IR)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 2A2	103P404070	CHIP RESISTOR	1/10W 68kΩ-J [VG, VY]
R 2A3	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J [VG, VY]
R 2A4	103P401030	CHIP RESISTOR	1/10W 100Ω-J [VG, VY]
R 2A5	103P402030	CHIP RESISTOR	1/10W 680Ω-J [VG, VY]
R 2A6	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J [VG, VY]
R 2A7	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VB, VE, VIR]
R 2A8	103P409050	CHIP RESISTOR	1/10W 0Ω [VG]
R 2D2	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2D3	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 2D4	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2E1	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J [EE, VB, VE, VIR, VY]
R 2E1	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J [VG]
R 2E2	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 2E5	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 2E6	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
R 2E7	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2E8	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 2F1	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2F2	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2F3	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2F4	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 2F5	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 2F6	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2F7	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 2F8	103P473080	CHIP RESISTOR	1/10W 3.6kΩ-F
R 2G0	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 2G1	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
R 2G2	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J
R 2G3	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 2G4	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2G5	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2G7	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2G8	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 2H1	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2H3	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2H4	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 2H5	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 2H7	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2J0	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 2J1	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2J2	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 2J3	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 2J4	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 2J5	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2J6	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2J8	103P402080	CHIP RESISTOR	1/10W 1.8kΩ-J
R 2J9	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 2K1	103P404010	CHIP RESISTOR	1/10W 22kΩ-J [VE, VG, VIR, VY]
R 2K7	103P470060	CHIP RESISTOR	1/10W 160Ω-F
R 2K8	103P470090	CHIP RESISTOR	1/10W 220Ω-F
R 2M5	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 2M6	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 2N4	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2N8	103P401080	CHIP RESISTOR	1/10W 270Ω-J

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 2N9	103P404090	CHIP RESISTOR	1/10W 100kΩ-J [EE, VB, VE, VG, VY]
R 2N9	103P403090	CHIP RESISTOR	1/10W 15kΩ-J [VIR]
R 2P2	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 2P3	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 2P5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2P7	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 2P9	103P404010	CHIP RESISTOR	1/10W 22kΩ-J [VE, VG, VIR, VY]
R 2R1	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2R2	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 2R4	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 2R6	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 2R9	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J [VE, VG, VIR, VY]
R 2S3	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 2S5	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 2T1	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J
R 2T2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2T3	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 2T8	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 2T9	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 2U0	103P409050	CHIP RESISTOR	1/10W 0Ω
R 2V0	103P401070	CHIP RESISTOR	1/10W 220Ω-J [EE, VB, VE, VG]
R 2V1	103P402050	CHIP RESISTOR	1/10W 1kΩ-J [EE, VB, VE, VG]
R 311	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 312	103P401080	CHIP RESISTOR	1/10W 270Ω-J
R 313	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 315	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 316	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 317	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 318	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 319	103P403040	CHIP RESISTOR	1/10W 5.6kΩ-J
R 320	103P402040	CHIP RESISTOR	1/10W 820Ω-J
R 325	103P474080	CHIP RESISTOR	1/10W 9.1K
R 326	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 327	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 328	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 330	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 331	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 332	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 334	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 337	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 338	103P473080	CHIP RESISTOR	1/10W 3.6kΩ-F
R 339	103P473060	CHIP RESISTOR	1/10W 3kΩ-F
R 3A0	103P402070	CHIP RESISTOR	1/10W 1.5kΩ-J
R 3A1	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 3A2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3A3	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3A4	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J
R 3A5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 3A6	103P478020	CHIP RESISTOR	1/10W 24kΩ-F
R 3B0	103P404050	CHIP RESISTOR	1/10W 47kΩ-J [EE, VB, VE, VIR]

[EE] : HS – M40 (EE)　[VB] : HS – M40V (B)　[VE] : HS – M40V (E)
[VG] : HS – M40V (G)　[VY] : HS – M40V (Y)　[VIR] : HS – M40V (IR)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 3B2	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VB, VE, VIR]
R 3B2	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J [VG, VY]
R 3B3	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 3B5	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 3B8	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J [EE, VB, VE, VIR]
R 4A0	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 4A5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 4A9	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 4B0	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 4B2	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 4B4	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 4B5	103P405050	CHIP RESISTOR	1/10W 330kΩ-J
R 4B6	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 4B7	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 4B8	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 4B9	103P405010	CHIP RESISTOR	1/10W 150kΩ-J
R 4C0	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 4C1	103P405010	CHIP RESISTOR	1/10W 150kΩ-J
R 4C3	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 4C6	103P405050	CHIP RESISTOR	1/10W 330kΩ-J
R 4C7	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 4C8	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 4C9	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 4D0	103P405000	CHIP RESISTOR	1/10W 120kΩ-J
R 4D1	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 4D2	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 4D3	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
R 4D4	103P405040	CHIP RESISTOR	1/10W 270kΩ-J
R 4D5	103P405000	CHIP RESISTOR	1/10W 120kΩ-J
R 4D6	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 4D7	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 4D8	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 4D9	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 4E1	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 4E2	103P472070	CHIP RESISTOR	1/10W 1.2kΩ-F
R 4E3	103P472070	CHIP RESISTOR	1/10W 1.2kΩ-F
R 4E6	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 4E7	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 4E9	103P404020	CHIP RESISTOR	1/10W 27kΩ-J
R 4F0	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 4F1	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 4F2	103P402060	CHIP RESISTOR	1/10W 1.2kΩ-J
R 4Z4	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 503	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 505	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 506	103P472060	CHIP RESISTOR	1/10W 1.1kΩ-F
R 508	103P409050	CHIP RESISTOR	1/10W 0Ω
R 509	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 510	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 511	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 512	103P401090	CHIP RESISTOR	1/10W 330Ω-J
R 513	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 520	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 521	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 527	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 528	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 530	103P402000	CHIP RESISTOR	1/10W 390Ω-J [EE, VE, VG, VY]
R 530	103P409050	CHIP RESISTOR	1/10W 0Ω [VB, VIR]
R 532	103P403080	CHIP RESISTOR	1/10W 12kΩ-J [EE, VE, VG, VY]
R 551	103P404020	CHIP RESISTOR	1/10W 27kΩ-J [EE, VE, VG]
R 552	103P403010	CHIP RESISTOR	1/10W 3.3kΩ-J [EE, VE, VG]
R 553	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [EE, VE, VG]
R 554	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [EE, VE, VG]
R 555	103P403070	CHIP RESISTOR	1/10W 10kΩ-J [EE, VE, VG]
R 556	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VE, VG]
R 5A0	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5A1	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 5A2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5A3	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5A5	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 5A6	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5A7	103P402030	CHIP RESISTOR	1/10W 680Ω-J
R 5A8	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5A9	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 5B0	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5B1	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5B2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5B3	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 5B4	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5B5	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 5B6	103P403060	CHIP RESISTOR	1/10W 8.2kΩ-J
R 5B7	103P402090	CHIP RESISTOR	1/10W 2.2kΩ-J
R 5B8	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 5B9	103P471020	CHIP RESISTOR	1/10W 300Ω-F
R 5C0	103P404070	CHIP RESISTOR	1/10W 68kΩ-J
R 5C1	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 5C2	103P405070	CHIP RESISTOR	1/10W 470kΩ-J
R 5C3	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5C4	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5C5	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5C6	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 5C7	103P405000	CHIP RESISTOR	1/10W 120kΩ-J
R 5C8	103P401020	CHIP RESISTOR	1/10W 82Ω-J
R 5D0	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5D2	103P403080	CHIP RESISTOR	1/10W 12kΩ-J
R 5D3	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 5D4	103P404000	CHIP RESISTOR	1/10W 18kΩ-J
R 5D6	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5D8	103P406090	CHIP METAL	1/10W 4.7MΩ-(
R 5E0	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 5E1	103P478020	CHIP RESISTOR	1/10W 240kΩ-F
R 5E2	103P477050	CHIP RESISTOR	1/10W 120K
R 5E3	103P476080	CHIP RESISTOR	1/10W 62kΩ-F
R 5E4	103P476000	CHIP RESISTOR	1/10W 30kΩ-F
R 5E5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5E6	103P475030	CHIP RESISTOR	1/10W 15kΩ-F
R 5E7	103P476070	CHIP RESISTOR	1/10W 56kΩ-F

[EE] : HS – M40 (EE)　[VB] : HS – M40V (B)　[VE] : HS – M40V (E)
[VG] : HS – M40V (G)　[VY] : HS – M40V (Y)　[VIR] : HS – M40V (IR)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 5E8	103P405030	CHIP RESISTOR	1/10W 220kΩ-J
R 5E9	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 5F0	103P405070	CHIP RESISTOR	1/10W 470kΩ-J
R 5F1	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5F6	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
R 5F8	103P473090	CHIP RESISTOR	1/10W 3.9kΩ-F
R 5G0	103P404010	CHIP RESISTOR	1/10W 22kΩ-J
R 5G4	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5G5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5G7	103P404080	CHIP RESISTOR	1/10W 82kΩ-J
R 5G9	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 5H0	103P403050	CHIP RESISTOR	1/10W 6.8kΩ-J
R 5H1	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 5H2	103P406090	CHIP METAL	1/10W 4.7MΩ-K
R 5H3	103P402050	CHIP RESISTOR	1/10W 1kΩ-J
R 5H5	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5H7	103P404050	CHIP RESISTOR	1/10W 47kΩ-J
R 5H8	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5J0	103P404090	CHIP RESISTOR	1/10W 100kΩ-J
R 5J1	103P404060	CHIP RESISTOR	1/10W 56kΩ-J
R 5J2	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5J3	103P403000	CHIP RESISTOR	1/10W 2.7kΩ-J
R 5J5	103P404040	CHIP RESISTOR	1/10W 39kΩ-J
R 5J6	103P403070	CHIP RESISTOR	1/10W 10kΩ-J
R 5J8	103P403080	CHIP RESISTOR	1/10W 12kΩ-J [EE, VE, VG, VIR, VY]
R 5K3	103P404030	CHIP RESISTOR	1/10W 33kΩ-J [VB, VE, VG, VY]
R 5P0	103P403030	CHIP RESISTOR	1/10W 4.7kΩ-J
R 5X0	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VB, VE, VG]
R 5X1	103P409050	CHIP RESISTOR	1/10W 0Ω
R 5X6	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 5X7	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 901	109D036040	COMPOSITION	1/2W 8.2MΩ-K
R 9A3	109P052010	FUSE	1/4W 100Ω-J
R 9A5	103P403090	CHIP RESISTOR	1/10W 15kΩ-J
R 9A6	103P476060	CHIP METAL	1/10W 51kΩ-F
R 9A7	103P476030	CHIP RESISTOR	1/10W 39kΩ-F
R 9A9	103P475010	CHIP RESISTOR	1/10W 12kΩ-F
R 9B0	103P475030	CHIP RESISTOR	1/10W 15kΩ-F
R 9B1	109P052050	FUSE	1/4W 6.8Ω-J
R 9B3	103P405080	CHIP RESISTOR	1/10W 560kΩ-J
R 9B5	103P404030	CHIP RESISTOR	1/10W 33kΩ-J
R 9B7	103P398050	FUSE	1/2W 2.7Ω-J [VB]
R 9C3	103P403020	CHIP RESISTOR	1/10W 3.9kΩ-J
RJ 51	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ 52	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ 53	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ 54	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ 56	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ101	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ102	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ104	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ105	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ109	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ110	103P409050	CHIP RESISTOR	1/10W 0Ω

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
RJ201	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ202	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ203	103P409050	CHIP RESISTOR	1/10W 0Ω [EE, VE, VG, VY]
RJ204	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ205	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ206	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ207	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ208	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ209	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ210	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ211	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ212	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ213	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ214	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ215	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ216	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ217	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ218	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ220	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ221	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ222	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ223	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ224	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ225	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ226	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ227	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ229	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ230	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ231	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ232	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ233	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ401	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ402	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ403	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ404	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ501	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ502	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ503	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ504	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ505	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ506	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ507	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ509	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ510	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ511	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ512	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ513	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ514	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ516	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ517	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ518	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ519	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ521	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ522	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ523	103P409050	CHIP RESISTOR	1/10W 0Ω

[EE] : HS – M40 (EE) [VB] : HS – M40V (B) [VE] : HS – M40V (E)
[VG] : HS – M40V (G) [VY] : HS – M40V (Y) [VIR] : HS – M40V (IR)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
RJ524	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ525	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ526	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ527	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ528	103P409050	CHIP RESISTOR	1/10W 0Ω
RJ529	103P409050	CHIP RESISTOR	1/10W 0Ω

CAPACITORS AND TRIMMERS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 102	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 104	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 105	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 106	154P331010	CHIP CAPACITOR	CH50V 10pF-C
C 107	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 108	141P134020	CHIP CAPACITOR	F50V 0.1μF-Z
C 109	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 112	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 114	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 116	141P130090	CHIP CAPACITOR	B50V 1000pF-K [VE, VIR, VY]
C 116	154P321080	CHIP CAPACITOR	SL50V 18pF-J [EE, VG]
C 116	154P322040	CHIP CAPACITOR	SL50V 33pF-J [VB]
C 117	154P331050	CHIP CAPACITOR	CH50V 15pF-J
C 118	141P132010	CHIP CAPACITOR	B50V 0.01μF-K
C 119	154P321080	CHIP CAPACITOR	SL50V 18pF-J [VE, VY]
C 119	154P322060	CHIP CAPACITOR	SL50V 39pF-J [EE, VG]
C 119	154P321060	CHIP CAPACITOR	SL50V 15pF-J [VB, VIR]
C 122	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [VE, VG, VY]
C 124	141P134010	CHIP CAPACITOR	F50V 0.047M [VE, VG, VY]
C 126	141P131020	CHIP CAPACITOR	B50V 1800pF-K [VE, VG, VY]
C 127	154P325080	CHIP CAPACITOR	SL50V 820pF [VE, VG, VY]
C 130	141P130060	CHIP CAPACITOR	B50V 560pF-K
C 131	141P130060	CHIP CAPACITOR	B50V 560pF-K
C 132	141P137080	CHIP CAPACITOR	B25V 0.047M
C 201	154P323000	CHIP CAPACITOR	SL50V 56pF-J
C 202	154P323000	CHIP CAPACITOR	SL50V 56pF-J
C 207	154P323020	CHIP CAPACITOR	SL50V 68pF-J
C 209	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 210	141P137080	CHIP CAPACITOR	B25V 0.047M
C 211	141P137080	CHIP CAPACITOR	B25V 0.047M
C 215	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 216	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 220	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 221	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 227	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 231	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 232	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 233	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 234	154P323040	CHIP CAPACITOR	SL50V 82pF-J
C 236	154P323040	CHIP CAPACITOR	SL50V 82pF-J
C 240	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 241	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 242	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 243	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 244	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 245	154P322080	CHIP CAPACITOR	SL50V 47pF-J [VB]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 245	154P323000	CHIP CAPACITOR	SL50V 56pF-J [EE, VE, VG, VIR, VY]
C 246	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 249	154P323040	CHIP CAPACITOR	SL50V 82pF-J
C 255	154P322040	CHIP CAPACITOR	SL50V 33pF-J
C 256	154P324020	CHIP CAPACITOR	SL50V 180pF-J
C 275	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z [EE, VE, VG, VIR, VY]
C 276	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 299	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 2C1	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2C2	154P322060	CHIP CAPACITOR	SL50V 39pF-J
C 2C3	154P325000	CHIP CAPACITOR	SL50V 390pF-J
C 2C4	154P325020	CHIP CAPACITOR	SL50V 470pF
C 2C6	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2C8	154P323080	CHIP CAPACITOR	SL50V 120pF-J
C 2C9	154P324000	CHIP CAPACITOR	SL50V 150pF-J
C 2D1	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 2D3	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2D4	154P324040	CHIP CAPACITOR	SL50V 220pF-J
C 2D7	154P325000	CHIP CAPACITOR	SL50V 390pF-J
C 2E0	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 2E1	154P322000	CHIP CAPACITOR	SL50V 22pF-J
C 2E3	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2E4	141P137040	CHIP CAPACITOR	B25V 0.022M
C 2F4	141P137080	CHIP CAPACITOR	B25V 0.047M
C 2F5	141P132000	CHIP CAPACITOR	B50V 8200pF-K [VE, VG, VIR, VY]
C 2F7	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 2G2	154P321080	CHIP CAPACITOR	SL50V 18pF-J
C 2G5	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2G7	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2H0	154P322020	CHIP CAPACITOR	SL50V 27pF-J
C 2H1	154P322040	CHIP CAPACITOR	SL50V 33pF-J
C 2H2	154P320080	CHIP CAPACITOR	SL50V 6pF-C
C 2H3	154P322080	CHIP CAPACITOR	SL50V 47pF-J
C 2H7	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2J5	154P324040	CHIP CAPACITOR	SL50V 220pF-J [EE, VB, VE, VIR]
C 2K1	154P324080	CHIP CAPACITOR	SL50V 330pF-J [EE]
C 2P2	154P322060	CHIP CAPACITOR	SL50V 39pF-J
C 2P3	154P323020	CHIP CAPACITOR	SL50V 68pF-J
C 2P8	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 2R0	154P322020	CHIP CAPACITOR	SL50V 27pF-J
C 2R1	154P322000	CHIP CAPACITOR	SL50V 22pF-J
C 2R2	141P137040	CHIP CAPACITOR	B25V 0.022M
C 2R3	141P137080	CHIP CAPACITOR	B25V 0.047M
C 2R4	154P323060	CHIP CAPACITOR	SL50V 100pF-J
C 2R5	141P139030	CHIP CAPACITOR	B25V 0.1μF-K
C 310	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 311	141P130080	CHIP CAPACITOR	B50V 820pF-K
C 318	141P131080	CHIP CAPACITOR	B50V 5600pF-K
C 328	141P130060	CHIP CAPACITOR	B50V 560pF-K
C 331	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 338	141P136030	CHIP CAPACITOR	F16V 1μF-Z
C 345	141P130090	CHIP CAPACITOR	B50V 1000pF-K [VG]

[EE] : HS – M40 (EE)　[VB] : HS – M40V (B)　[VE] : HS – M40V (E)
[VG] : HS – M40V (G)　[VY] : HS – M40V (Y)　[VIR] : HS – M40V (IR)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 3A2	141P138040	CHIP CAPACITOR	B25V 0.15 μF-K
C 3A3	141P138040	CHIP CAPACITOR	B25V 0.15 μF-K
C 3B4	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 4A3	141P137070	CHIP CAPACITOR	B25V 0.039 μF-K
C 4A5	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 4A7	154P324020	CHIP CAPACITOR	SL50V 180pF-J
C 4A9	141P131060	CHIP CAPACITOR	B50V 3900pF-K
C 4B3	141P133090	CHIP CAPACITOR	F50V 0.022M
C 4B4	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 4B6	141P131010	CHIP CAPACITOR	B50V 1500pF
C 4C1	141P131050	CHIP CAPACITOR	B50V 3300pF-K
C 4C2	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 4C3	141P139010	CHIP CAPACITOR	B25V 0.068 μF-K
C 4C4	141P131080	CHIP CAPACITOR	B50V 5600pF-K
C 4C5	141P131080	CHIP CAPACITOR	B50V 5600pF-K
C 4C6	141P139000	CHIP CAPACITOR	B25V 0.056 μF-K
C 4C9	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 4D5	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 4E0	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 501	154P330060	CHIP CAPACITOR	CH50V 5pF-C
C 502	154P330060	CHIP CAPACITOR	CH50V 5pF-C
C 505	154P331090	CHIP CAPACITOR	CH50V 22pF-J
C 507	154P331090	CHIP CAPACITOR	CH50V 22pF-J
C 510	141P137080	CHIP CAPACITOR	B25V 0.047M
C 512	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 514	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 525	154P322080	CHIP CAPACITOR	SL50V 47pF-J [EE, VE, VG, VY]
C 551	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K [EE, VE, VG]
C 552	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K [EE, VE, VG]
C 554	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z[EE, VE, VG]
C 555	141P130090	CHIP CAPACITOR	B50V 1000pF-K [EE, VE, VG]
C 556	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K [EE, VE, VG]
C 557	154P331010	CHIP CAPACITOR	CH50V 10pF-C [EE, VE, VG]
C 558	154P331050	CHIP CAPACITOR	CH50V 15pF-J [EE, VE, VG]
C 5A0	189P197020	C-ELE-DOUBLE-LAYER	AC310G473Z5R5
C 5A3	154P331090	CHIP CAPACITOR	CH50V 22pF-J
C 5A4	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 5A5	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 5A6	141P130060	CHIP CAPACITOR	B50V 560pF-K
C 5A7	154P324060	CHIP CAPACITOR	SL50V 270pF-J
C 5A8	154P333010	CHIP CAPACITOR	CH50V 68pF-J
C 5B0	141P131090	CHIP CAPACITOR	B50V 6800pF-K
C 5B3	141P131030	CHIP CAPACITOR	B50V 2200pF-K
C 5B5	141P131010	CHIP CAPACITOR	B50V 1500pF
C 5B6	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 5B7	141P132000	CHIP CAPACITOR	B50V 8200pF-K
C 5D2	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 5D5	141P135080	CHIP CAPACITOR	F25V 0.1 μF-Z
C 5D6	141P134010	CHIP CAPACITOR	F50V 0.047M
C 5D7	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 5D8	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 5E3	141P133090	CHIP CAPACITOR	F50V 0.022M [EE, VE, VG, VIR, VY]
C 5E4	141P133090	CHIP CAPACITOR	F50V 0.022M [EE, VE, VG, VIR, VY]
C 5F0	141P134020	CHIP CAPACITOR	F50V 0.1 μF-Z
C 5F1	154P331010	CHIP CAPACITOR	CH50V 10pF-C
C 5F2	154P331090	CHIP CAPACITOR	CH50V 22pF-J
C 5F3	154P331010	CHIP CAPACITOR	CH50V 10pF-C
C 5F4	141P134010	CHIP CAPACITOR	F50V 0.047M
C 901	189P153040	C-METAL-P-FILM	AC250V 0.1M μF-M [VG]
C 902	189P153040	C-METAL-P-FILM	AC250V 0.1 μF-M [VG]
C 9A9	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 9C0	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 9C1	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z

SWITCHES

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
S 5A0	439P033010	SWITCH	RIS MPU10101MMBO
S 5A1	432P166010	KEY BOARD SWITCH	RESET
S 8A1	432P089040	KEY BOARD SWITCH	STOP
S 8A2	432P089040	KEY BOARD SWITCH	POWER
S 8A4	432P089040	KEY BOARD SWITCH	AUTO SET UP [VB]
S 8B1	432P089040	KEY BOARD SWITCH	PLAY
S 8B2	432P089040	KEY BOARD SWITCH	EJECT
S 8C1	432P089040	KEY BOARD SWITCH	REC/OTR
S 8C2	432P089040	KEY BOARD SWITCH	ONE KEY PROGRAM
S 8D1	432P089040	KEY BOARD SWITCH	PAUSE
S 8D2	432P089040	KEY BOARD SWITCH	RENT PB
S 8J0	439P034010	SWITCH JOG	JOG SHUTTLE

MISCELLANEOUS

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
	243C125010	CARD LEAD	9P L=50 REV
CU 01	295P407020	RF CONVERTER	[EE]
CU 01	295P276030	RF CONVERTER	901A [VB]
CU 01	295D059010	RF CONVERTER	[VE, VG, VY]
CU 01	295P276020	RF CONVERTER	725A [VIR]
F 901	283D046080	FUSE	T630MA
F 902	283D047050	FUSE	T2.5A
F 903	283D047050	FUSE	T2.5A
J 2301	451C058020	CONNECTOR	21P [VB, VE, VG, VIR, VY]
J 2302	451C058020	CONNECTOR	21P [VB, VE, VG, VIR, VY]
J 8A0	440C267030	PIN JACK BOARD	3P
M 470	288P126010	MOTOR CAPSTAN	F2QKB79
M 570	288P088060	MOTOR DRUM	DC12V 3.3W
M 571	288D034010	MOTOR LOADING ASSY	
MF OF	243C073010	CARD LEAD	9P L=130(MX–PX)
MK TK	243C094080	CARD LEAD	29P L210(MK–TK)
MP EP	243C091060	CARD LEAD	9P L=85 (MP–EP) [VB]
P 5A0	286P010010	BUZZER	PKM22EPT-2001
S 570	439P031010	MODE SELECT SWITCH	(J)
T 370	460P060060	A/C HEAD	
T 371	460P153010	FULL ERASE HEAD	FE HEAD
TU 01	295P417010	TUNER	ENV-578E7F1 [EE, VG]
TU 01	295P418010	TUNER	TEKE4-071A [VE, VY]
TU 01	295P260040	TUNER	ENV-59890F2 [VIR]
TU 01	295P194020	TUNER TV	TERB1-044A [VB]
V 8A0	253P112020	TUBE FLUOR	10-MT-670AK
X 2A0	285P083010	CRYSTAL RESONATOR	4.43362MHz

[EE] : HS – M40 (EE)
[VG] : HS – M40V (G)
[VB] : HS – M40V (B)
[VY] : HS – M40V (Y)
[VE] : HS – M40V (E)
[VIR] : HS – M40V (IR)

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
X 501	285P084010	CRYSTAL RESONATOR	17.7345MHz
X 551	285P166020	CRYSTAL RESONATOR	27MHz [EE, VE, VG]
X 570	285P166020	CRYSTAL RESONATOR	27MHz [VB]
X 5A0	285P054030	CRYSTAL RESONATOR	32.8kHz [EE, VE, VG, VIR, VY]
X 5A0	285P054010	CRYSTAL RESONATOR	32.768kHz [VB]
X 5A1	285P235010	CRYSTAL RESONATOR	8.3886MHz
Z 8A0	939P580010	PREAMP UNIT	TFMT 5330

PRINTED CIRCUIT BOARD ASSY'S

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
	928C863001	CONNECTOR PCB ASSY	[VB, VE, VIR]
	928C863002	CONNECTOR PCB ASSY	[VY]
	928C864002	CONNECTOR-G PCB ASSY	[VG]
	927B800007	HA/AUDIO PCB ASSY	[EE, VB, VE, VIR, VY]
	927B800008	HA/AUDIO PCB ASSY	[VG]
	927B798019	MAIN PCB ASSY	[EE]
	927B798017	MAIN PCB ASSY	[VB]
	927B798016	MAIN PCB ASSY	[VE]
	927B798020	MAIN PCB ASSY	[VG]
	927B798018	MAIN PCB ASSY	[VIR]
	927B798015	MAIN PCB ASSY	[VY]
	928C868001	NTSC-PB PCB ASSY	[VE, VG, VIR, VY]
	928C873001	SIF PCB ASSY	[EE]
	928C865001	TEXT PCB ASSY	[VB]
	927B801006	TIMER PCB ASSY	[EE]
	927B801002	TIMER PCB ASSY	[VB]
	927B801005	TIMER PCB ASSY	[VE]
	927B801003	TIMER PCB ASSY	[VG]
	927B801004	TIMER PCB ASSY	[VIR]
	927B801001	TIMER PCB ASSY	[VY]

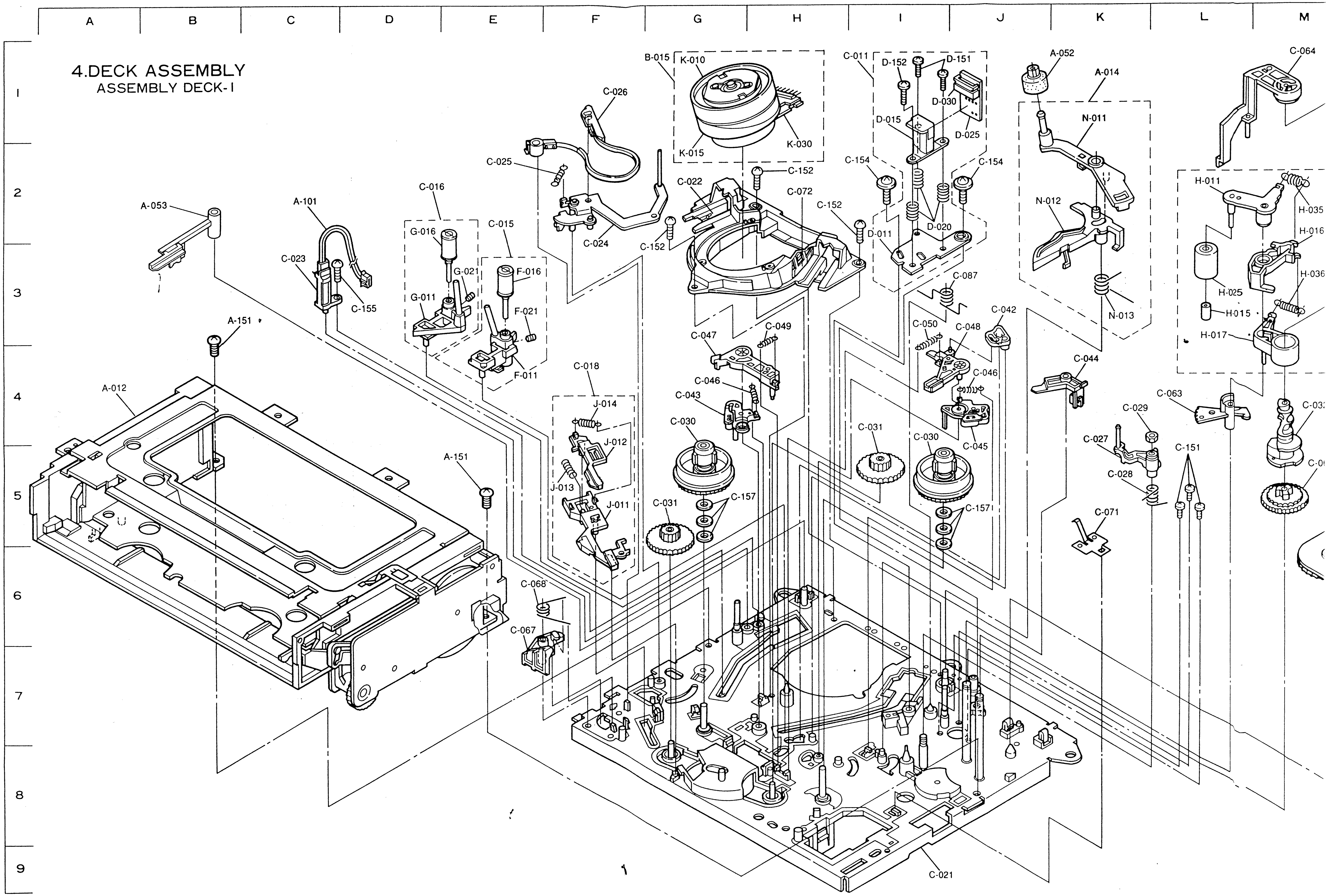
SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION

[MEMO]

[MEMO]

4.DECK ASSEMBLY

ASSEMBLY DECK-I



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C-152
C-152
C-072
C-152
C-011
D-152
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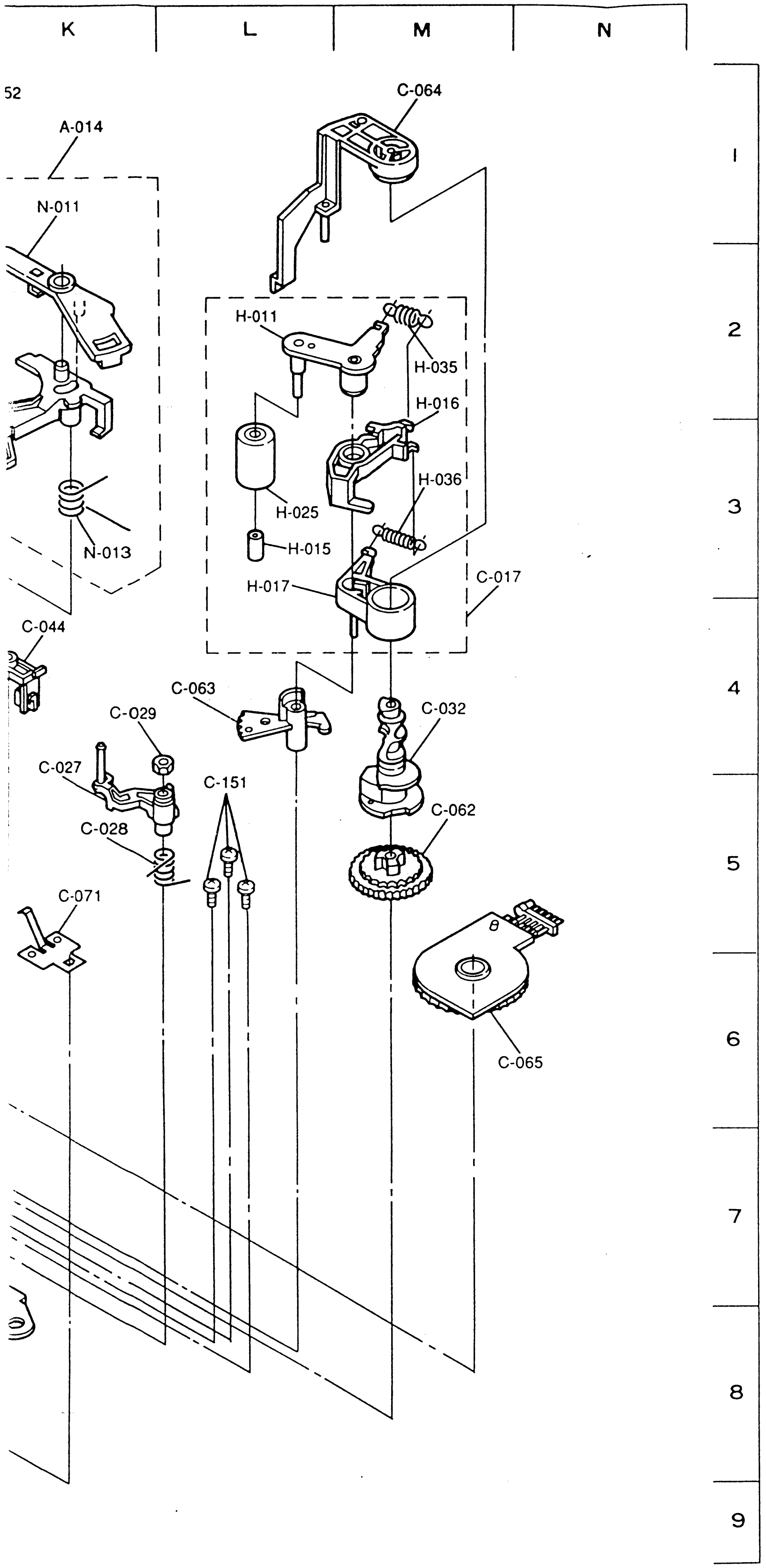
C-067
C-021



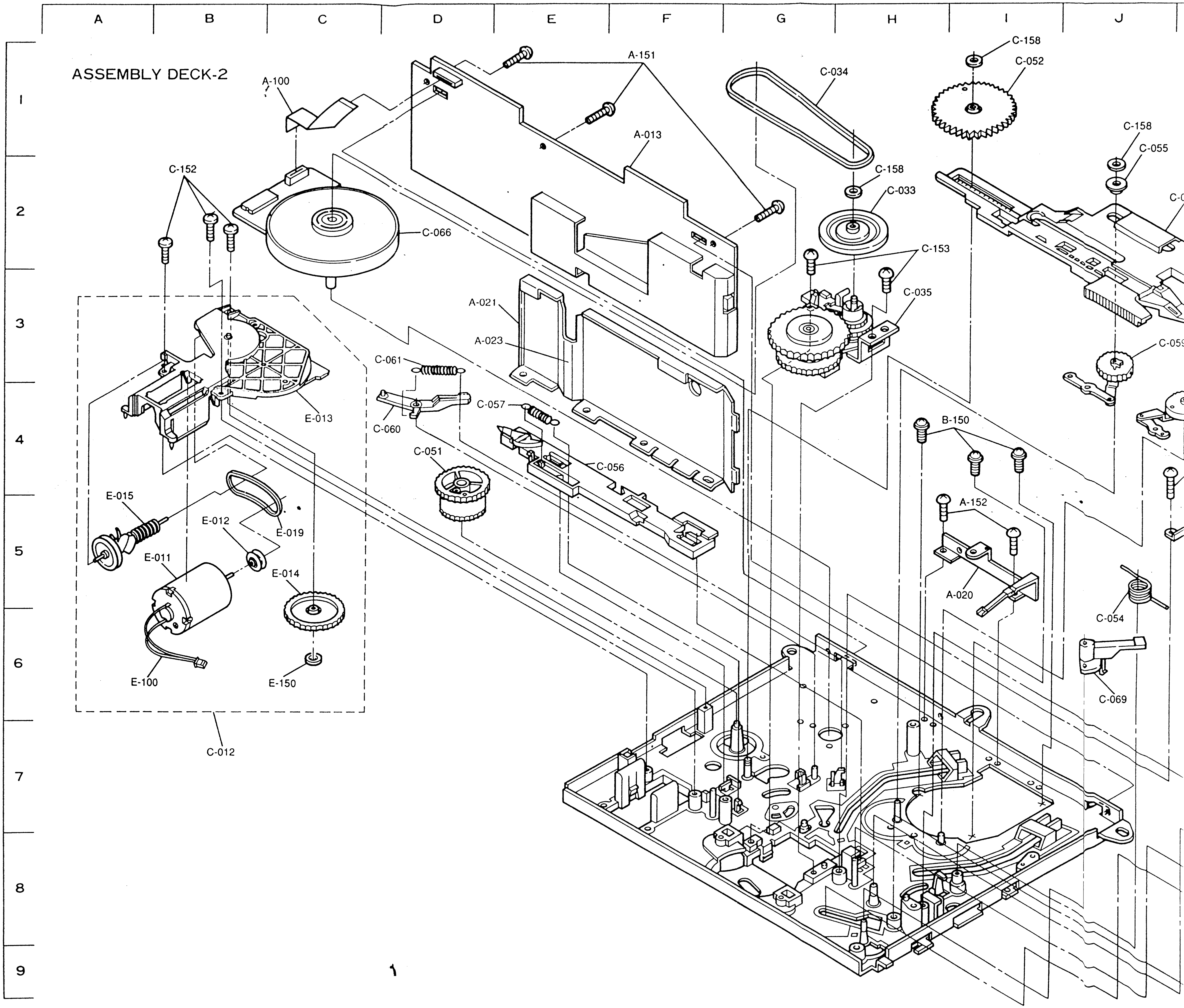
＊Settelled Service Parts

ITEM	PARTS No.	＊	ADDRESS		PARTS NAME	DESCRIPTION	Qt.
A-012	948A155001	○	A-4		ASSY-F/L-J	[30Y, 30EE, 30VY, 30VE, 40EE, 40VY, 40VE, 40VB, 40VIR]	01
A-012	948A155002	○	A-4		ASSY-F/L-J	[30VG, 40VG]	01
A-014	948B349001		K-2		ASSY-CLE		01
N-011	641B680010	○	K-2		ARM-CLE		01
N-012	641B681010	○	K-3		LEVER-CLE		01
N-013	572D703010	○	K-3		SPRING-CLE		01
B-015	948B345021	○	G-2		ASSY-DRUM	[M30]	01
B-015	948B342021	○	G-2		ASSY-DRUM	[M40]	01
K-010	927B730021	○	G-1		ASSY-UPPR-DRUM	[M30]	01
K-010	927B723020	○	G-1		ASSY-UPPR-DRUM	[M40]	01
K-015	927B729021		G-2		ASSY-LOWER-DRUM	[M30]	01
K-015	927B722021	○	G-2		ASSY-LOWER-DRUM	[M40]	01
K-030	288P088060	○	H-2		MOTOR-DRUM	M570	01
C-011	928D104002	○	I-1		ASSY-A/C-HEAD		01
D-011	593C399010		I-2		PLATE-A/C		01
D-015	460P060060	○	I-1		HEAD	T370	01
D-020	572D639010		I-2		SPRING-A/C		03
D-025	215C730010		J-1		PWB-A/C-JA		01
D-030	452C140060		J-1		CONNECTOR-PC2M(S)		01
D-151	669D483010		I-1		SCREW	M2. 6×8	02
D-152	669D485010		I-1		SCREW	2. 6×8	01
C-015	948D042001	○	E-3		ASSY-TAPE-GUIDE-T		01
C-015	948D042002	○	E-3		ASSY-TAPE-GUIDE-T		01
C-015	948D042003	○	E-3		ASSY-TAPE-GUIDE-T		01
F-011	635B085010	○	E-4		TAPE-GUIDE-T		01
F-011	635B085020	○	E-4		TAPE-GUIDE-T		01
F-011	635B085030	○	E-4		TAPE-GUIDE-T		01
F-016	522D177010	○	E-3		GUIDE-ROLLER		01
F-021	669D197020		E-4		SET-SCREW-F	D=M3×0. 5 L=4	01
C-016	948D043001	○	D-3		ASSY-TAPE-GUIDE-S		01
C-016	948D043002	○	D-3		ASSY-TAPE-GUIDE-S		01
C-016	948D043003	○	D-3		ASSY-TAPE-GUIDE-S		01
G-011	635B086010	○	D-3		TAPE-GUIDE-S		01
G-011	635B086020	○	D-3		TAPE-GUIDE-S		01
G-011	635B086030	○	D-3		TAPE-GUIDE-S		01
G-016	522D177010	○	D-3		GUIDE-ROLLER		01
G-021	669D197020		E-3		SET-SCREW-F	D=M3×0. 5 L=4	01
C-017	948D044001	○	M-3		ASSY-ARM-PINCH		01
H-011	593C465010		L-2		ARM-PINCH		01
H-015	622D235010	○	L-3		CAP-ROLLER		01
H-016	621C243010		M-3		LEVER-PINCH		01
H-017	621C241010		M-3		SLIDER-PINCH		01
H-025	522D174010	○	L-3		ROLLER-PINCH		01
H-035	572D314010	○	M-2		SPRING-PINCH		01
H-036	572D714010	○	M-3		SPRING-CAM-PINCH		01
C-018	948C315001		F-4		ASSY-CHARGE		01
J-011	641B629010	○	F-6		LEVER-SWING-ID		01
J-012	621C238010	○	F-5		LEVER-REV		01
J-013	572D684010		F-5		SPRING-CHARGE		01
J-014	572D624010	○	F-5		SPRING-REV		01
C-021	948A159001		I-9		ASSY-MAIN-PLATE		01
C-022	635A038010		G-2		DRUM-BASE		01
C-023	460P153010	○	C-3		HEAD-FE	T371	01

＊Settelled Service Parts

ITEM	PARTS No.	＊	ADDRESS		PARTS NAME	DESCRIPTION	Qt.
C-024	592B049010	○	F-3		ARM-TENSION		01
C-025	572D627010	○	F-2		SPRING-TENS		01
C-026	641B624020	○	F-2		BELT-TENS-BRAKE		01
C-027	635B084010	○	K-5		ARM-TU-G		01
C-028	572D647010	○	K-5		SPRING-TU-G		01
C-029	674D081020	○	K-5		NUT-NYLON	M3×0. 5	01
C-030	522C092010	○	I-5	G-5	UNIT-REEL-DISK		02
C-031	621C234010	○	I-5	G-6	GEAR-R		02
C-032	641B630010	○	M-4		CAM-PINCH-J		01
C-042	621C315010	○	J-4		LEVER-SUB-OFF		01
C-043	641B635020	○	G-4		BRAKE-MAIN-S		01
C-044	622D219010	○	K-4		LEVER-RELEASE-M/B		01
C-045	641B634020	○	J-4		BRAKE-MAIN-T		01
C-046	572D635010	○	H-4	J-4	SPRING-M/B-J		02
C-047	641B633010	○	G-4		BRAKE-SUB-S		01
C-048	641B632020	○	I-4		BRAKE-SUB-T		01
C-049	572D623010	○	H-4		SPRING-SUB-S		01
C-050	572D625010	○	I-4		SPRING-SUB-T		01
C-062	621C240010	○	M-5		GEAR-PINCH		01
C-063	635C098010	○	L-4		GEAR-TU-G		01
C-064	641B628010	○	M-1		CAP-CAM-PINCH		01
C-065	439P031010	○	N-6		SW-MODE-J	S570	01
C-067	641B641010	○	E-7		LEVER-RIS		01
C-068	572D646010	○	E-6		SPRING-RIS		01
C-071	597D102010		K-5		PLATE-EB		01
C-072	572D712010	○	H-3		SPRING-DB		01
C-087	572D697010		I-3		SPRING-AC-EARTH		01
C-151	669D285040		L-5		SCREW-TB-PAN	M2. 6×8	03
C-152	669D224020		G-3 I-3	H-2	SCREW-TB	2. 6×8	03
C-154	669D476020	○	I-2	J-2	SCREW-TB-SEMS	2. 6×8	02
C-155	669D224030		D-3		SCREW-TB	2. 6×10	01
C-157	552C017030	○	G-5	J-5	WASHER-THRUST	2. 5×6×0. 13	06
A-052	621C033010	○	J-1		UNIT-CLE-ROLLER		01
A-053	621C344010	○	B-2		LEVER-TG		01
A-101	248B173010		C-3		LEAD-CONNECTOR-S		01
A-120	641C685010		E-7		CLAMPER-LEAD-F/L		01
A-151	669D224020		B-4	E-5	SCREW-TB	2. 6×8	02

ASSEMBLY DECK-2



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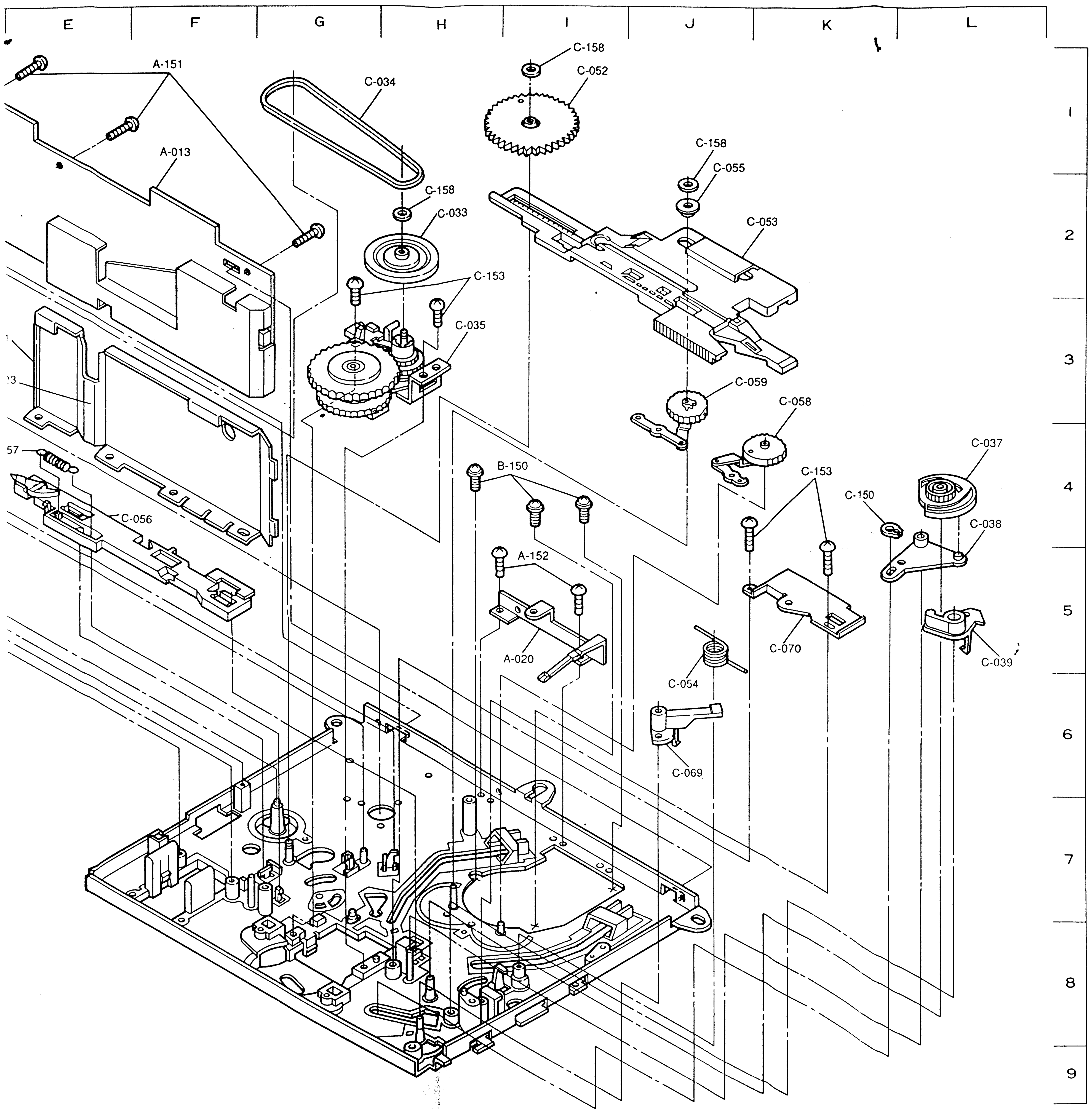
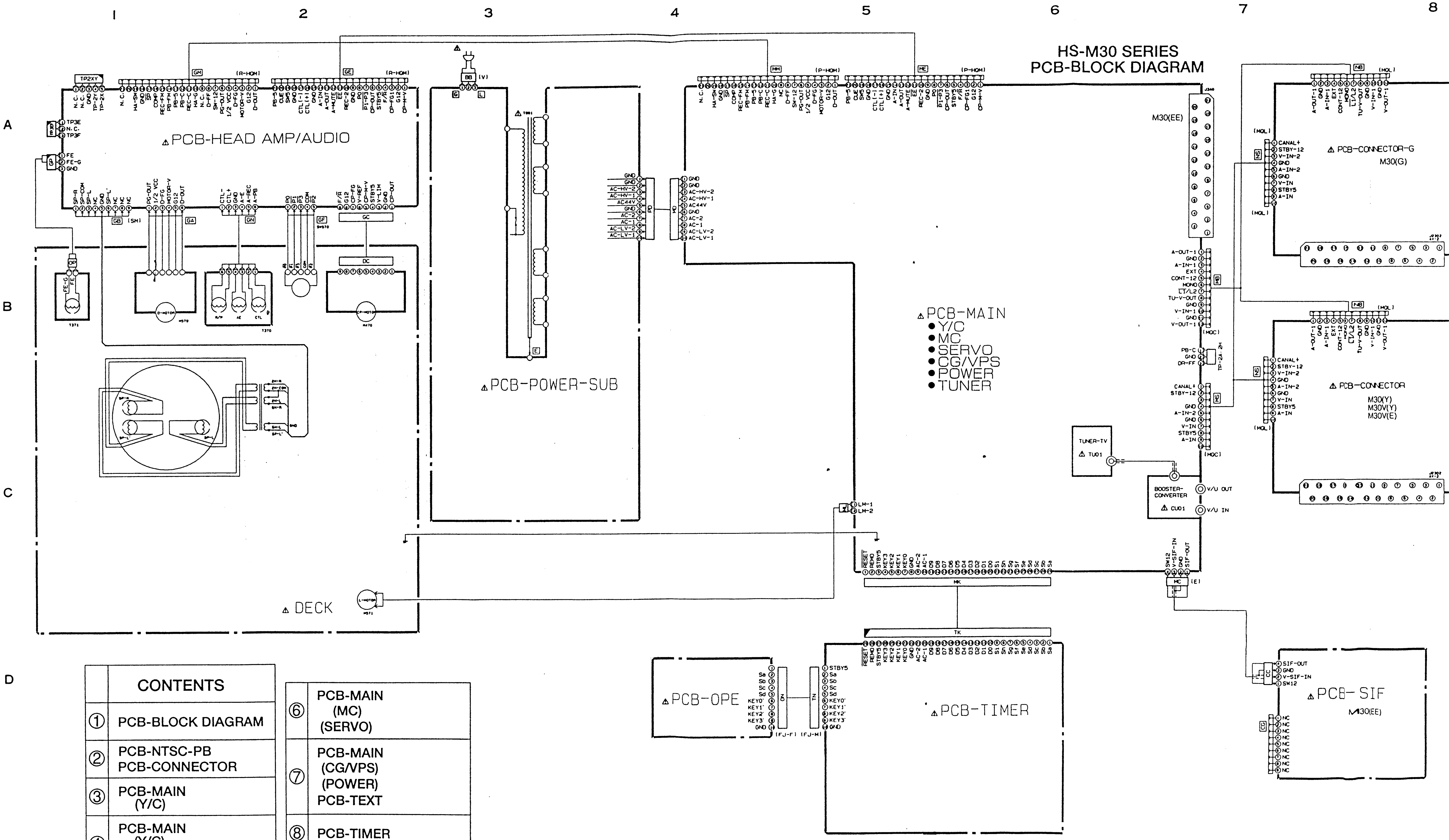


*Settelled Service Parts

ITEM	PARTS No.	*	ADDRESS		PARTS NAME	DESCRIPTION	Qt.
A-013	927B800004	○	F-2		ASSY-PWB-HA/AUDIO	[30Y, 30EE, 30VY, 30VE]	01
A-013	927B800005	○	F-2		ASSY-PWB-HA/AUDIO	[30VG]	01
A-013	927B800007	○	F-2		ASSY-PWB-HA/AUDIO	[40EE, 40VY, 40VE, 40VB, 40VIR]	01
A-013	927B800008	○	F-2		ASSY-PWB-HA/AUDIO	[40VG]	01
C-012	928D105001		B-7		ASSY-L-MOTOR		01
E-011	288D034010	○	B-5		MOTOR-LOADING		01
E-012	622D220010		B-5		PULLEY-MOTOR		01
E-013	641B640010		C-4		HOLDER-MOTOR-J		01
E-014	621C258010	○	C-6		GEAR-A		01
E-015	621C259010	○	A-5		PULLEY-WORM-J		01
E-019	521D082010	○	C-5		BELT-LM		01
E-100	248B173020		B-6		LEAD-CONNECTOR-S		01
E-150	552C018020		C-6		CUT-WASHER	2. 5×4. 7×0. 5	01
A-020	299C030010	○	I-5		BRUSH		01
A-021	292B204010		D-3		SHIELD-PLATE-HAK		01
A-023	223D533010		D-3		BARRIER-HA		01
A-100	243C125010	○	C-1		LEAD-CARD		01
A-151	669D224020		E-1 G-2	E-2	SCREW-TB	2. 6×8	03
A-152	669D224010		I-5		SCREW-TB	2. 6×6	02
B-150	669D200020		I-4		SCREW-SEMS	M2. 6×0. 45-6	03
C-033	621C254010	○	H-2		PULLEY-BELT		01
C-034	521D081010	○	G-1		BELT-REEL-J		01
C-035	522B057010	○	H-3		UNIT-REEL-IDLER		01
C-037	621C235010	○	L-4		CAM-GEAR-R		01
C-038	622D229010	○	L-5		LEVER-CHARGE		01
C-039	622D223010	○	L-5		LEVER-T-OFF		01
C-051	621C257010	○	D-5		GEAR-JOINT-J		01
C-052	641B637010	○	I-1		MAIN-GEAR-J		01
C-053	641A311010	○	J-2		PLATE-CAM-B		01
C-054	572D640010		J-5		SPRING-CAM-B		01
C-055	622D224010	○	J-2		ROLLER-B		01
C-056	641B636010	○	E-4		PLATE-CAM-C		01
C-057	572D636010	○	E-4		SPRING-CAM-C		01
C-058	592B048010	○	K-4		ARM-LOAD-S		01
C-059	592B047010	○	J-4		ARM-LOAD-T		01
C-060	621C261010	○	D-4		BRAKE-CP		01
C-061	572D645010	○	D-3		SPRING-B-CP		01
C-066	288P126010	○	C-2		MOTOR-CP	M470	01
C-069	621C308010	○	J-6		ARM-RIS		01
C-070	593C532010	○	K-5		PLATE-J		01
C-150	685C009010	○	K-4		GRIP-RING		01
C-152	669D224020		B-2		SCREW-TB	2. 6×8	03
C-153	669D224010		K-4 G-3	K-5 H-3	SCREW-TB	2. 6×6	04
C-158	552C018010	○	J-2 H-2	I-1	CUT-WASHER	2. 5×6. 0×0. 5	03

HS-M30 SERIES
PCB-BLOCK DIAGRAM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⚠PCB-HEAD AMP/AUDIO
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TP3F
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FE-G
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(SH)
GA
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GF
GC
DC
D-MOTOR
CP-MOTOR
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T370
M370
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(V)
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⚠T901
E
⚠DECK
L-MOTOR
GND
AC-HV-2
AC-HV-1
AC44V
AC-2
AC-1
AC-LV-2
AC-LV-1
PO
MO
HH
HE
(P-HOM)
M30(EE)
⚠PCB-MAIN
● Y/C
● MC
● SERVO
● CG/VPS
● POWER
● TUNER
A-OUT-1
A-IN-1
EXT
CONT-12
MONO
L1/L2
TU-V-OUT
V-IN-1
V-OUT-1
(MOC)
PB-C
DR-FF
TP-2A 2H
CANAL+
STBY-12
A-IN-2
V-IN
STBY5
A-IN
TUNER-TV
⚠TU01
BOOSTER-CONVERTER
⚠CU01
V/U OUT
V/U IN
LM-1
LM-2
NB
(MOL)
NS
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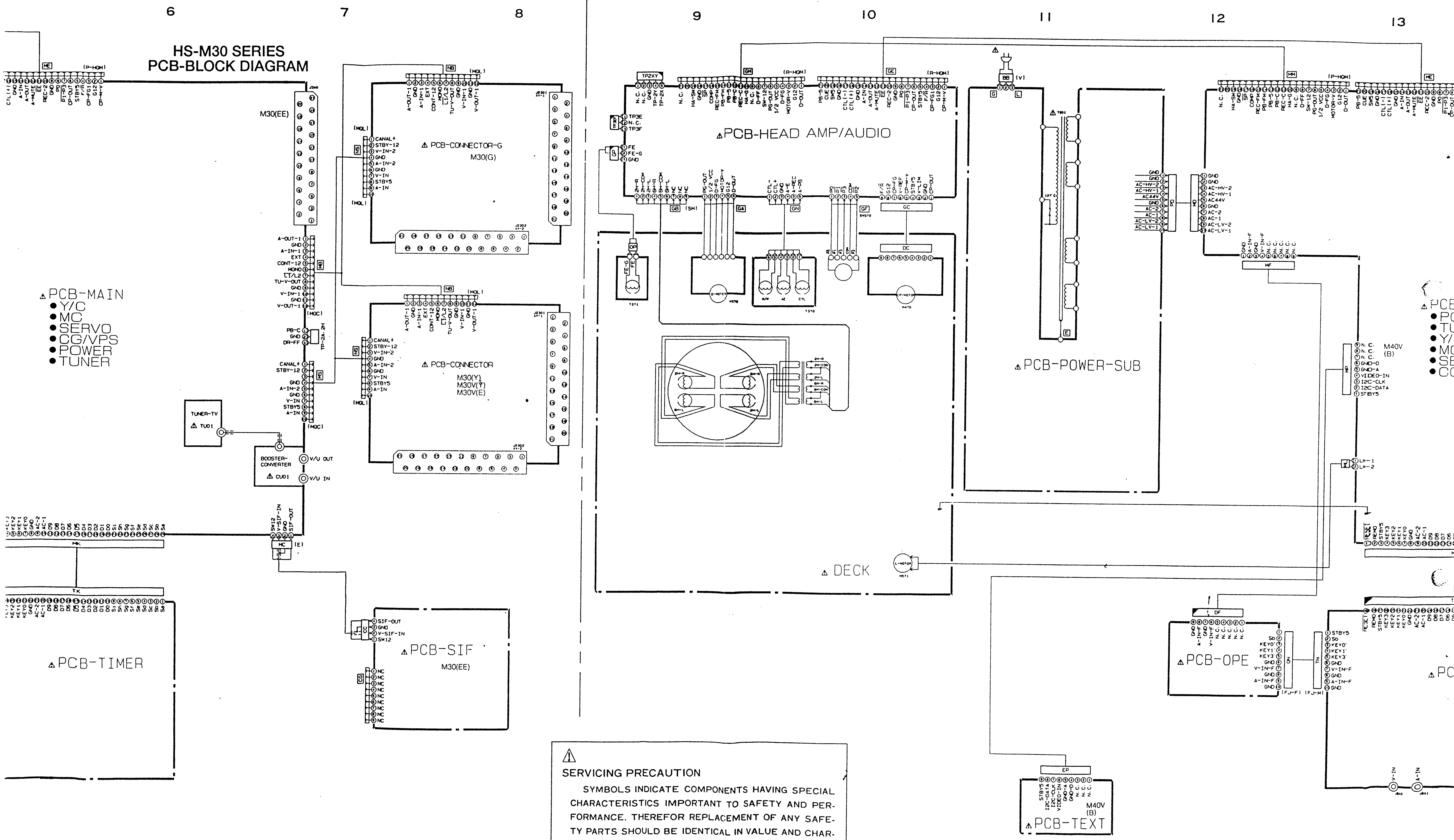
M30(G)
⚠PCB-CONNECTOR
M30(Y)
M30V(Y)
M30V(E)
SW12
V-SIF-IN
SIF-OUT
MC
(E)
HK
TK
RESET
REMO
STBY5
KEY3
KEY2
KEY1
KEY0
Sa
Sb
Sc
Sd
⚠PCB-OPE
KEY0'
KEY1'
KEY2'
KEY3'
ON
TN
(FJ-F)
(FJ-M)
⚠PCB-TIMER
CC
SIF-OUT
⚠PCB-SIF
M30(EE)
CG
NC

	CONTENTS
①	PCB-BLOCK DIAGRAM
②	PCB-NTSC-PB PCB-CONNECTOR
③	PCB-MAIN (Y/C)
④	PCB-MAIN (Y/C)
⑤	PCB-MAIN (TUNER/VIF) PCB-HEAD AMP

⑥	PCB-MAIN (MC) (SERVO)
⑦	PCB-MAIN (CG/VPS) (POWER) PCB-TEXT
⑧	PCB-TIMER
⑨ ~ ⑪	PATTERN

HS-M30 SERIES
PCB-BLOCK DIAGRAM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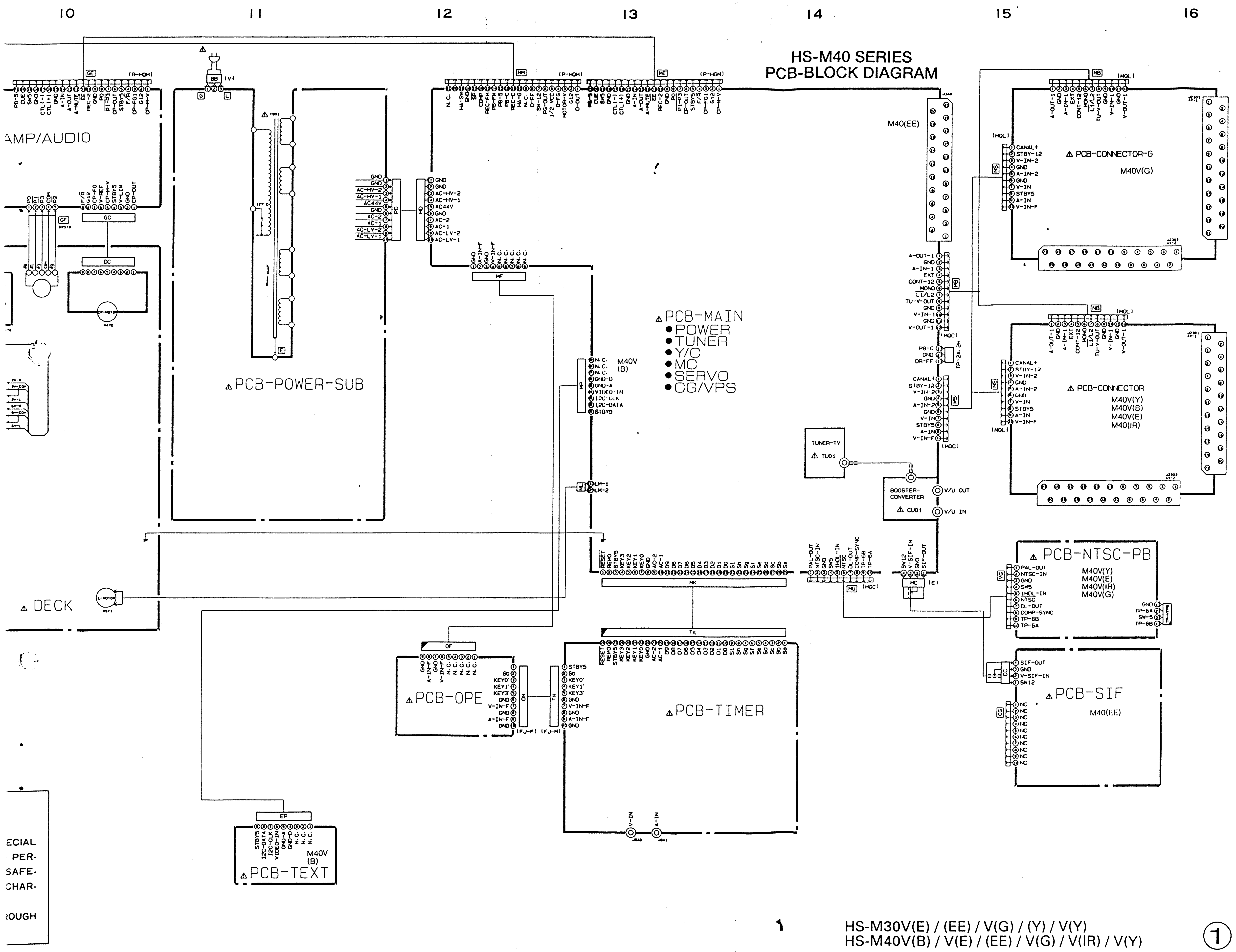
⚠ PCB-MAIN
● Y/C
● MC
● SERVO
● CG/VPS
● POWER
● TUNER
M30(EE)
⚠ PCB-CONNECTOR-G
M30(G)
⚠ PCB-CONNECTOR
M30(Y)
M30V(Y)
M30V(E)
TUNER-TV
⚠ TU01
BOOSTER-CONVERTER
⚠ CU01
V/U OUT
V/U IN
⚠ PCB-TIMER
⚠ PCB-SIF
M30(EE)
⚠ PCB-HEAD AMP/AUDIO
⚠ PCB-POWER-SUB
⚠ DECK
⚠ PCB-OPE
⚠ PCB-TEXT
M40V
(B)
L-MOTOR
D-MOTOR
CP-MOTOR
TP-2A, 2H
SIF-OUT
GND
V-SIF-IN
SM12
STBY5
I2C-DATA
I2C-CLK
VIDEO-IN
GND-0
GND-A
N.C.
LH-1
LH-2
MK
TK
HC
EP
OF
MP

⚠
SERVICING PRECAUTION

SYMBOLS INDICATE COMPONENTS HAVING SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY AND PERFORMANCE. THEREFOR REPLACEMENT OF ANY SAFETY PARTS SHOULD BE IDENTICAL IN VALUE AND CHARACTERISTICS.
DON'T DEGRADE THE SAFETY OF THE VCR THROUGH IMPROPER SERVICING.

HS-M40 SERIES PCB-BLOCK DIAGRAM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BB (V)
G
L
GC
GF
DC
M470
HH (P-HOM)
HE (P-HOM)
PO
HO
HF
△PCB-POWER-SUB
△PCB-MAIN
● POWER
● TUNER
● Y/C
● MC
● SERVO
● CG/VPS
M40V (B)
M40(EE)
NB (MOL)
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M40V(G)
△PCB-CONNECTOR
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M40V(B)
M40V(E)
M40V(IR)
TUNER-TV
△ TU01
BOOSTER-CONVERTER
△ CU01
V/U OUT
V/U IN
△PCB-NTSC-PB
M40V(Y)
M40V(E)
M40V(IR)
M40V(G)
△PCB-SIF
M40(EE)
△ DECK
L-MOTOR
MK
TK
OF
△PCB-OPE
△PCB-TIMER
V-IN
A-IN
EP
M40V (B)
△PCB-TEXT
ECIAL
PER-
SAFE-
CHAR-
ROUGH

HS-M30V(E) / (EE) / V(G) / (Y) / V(Y)
HS-M40V(B) / V(E) / (EE) / V(G) / V(IR) / V(Y)

SCHEMATIC DIAGRAM

• NOTE

1. Each voltage should be within ±20% of the DC voltages measured with a digital voltmeter.
2. The voltages parenthesised are on SP recording mode. While those without parenthesised on SP play back mode.
3. Waveforme were taken with standard colour bar signal.
4. TP6A, etc. show Test Points.

5. CAPACITORS

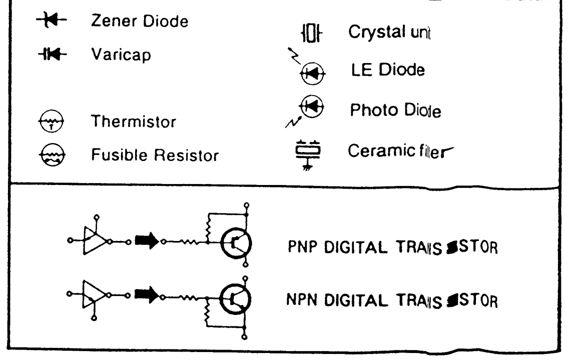
Value	Not indicated: PF, for numbers more than 1 μF, for numbers less than 1		
Dielectric Strength	Not indicated :50V		
Tolerance	Not indicated =±10% [No Tolerance is indicated for electrolytic capacitors and ±20%] G=±2% J=±5% K=±10% M=±20% P=+100% −0% Z=+80% −20% Q=+30% −10% T=+200% −0% C=±0.25PF D=±0.5PF F=±1PF G=±2PF		
Sort	I	Parts except for chips	Not indicated : Ceramic capacitor MF : Polyester capacitor PP : Polypropylene film capacitor ALM : Aluminus electrolytic capacitor TF : Twin film capacitor SC : Semiconductor ceramic capacitor MP : Metalized paper MPP : Metalized plastic film capacitor MMF : Metalized polyester capacitor MF.PP : Polyester polypropylene film capacitor PS : Styrol capacitor TAN or TANT : Tantalum capacitor ⊣⊢ : Electrolytic capacitor BP or NP : Non polarized electrolytic capacitor
	II	Chips	Not indicated : Ceramic capacitor chip ⊣⊢ : Electrolytic capacitor BP or NP : Non polarized electrolytic capacitor chip
Characteristic (only ceramic capacitor)	Not indicated : F or B(high dielectric percentage) CH,SL,etc. : Temperature compensating types		

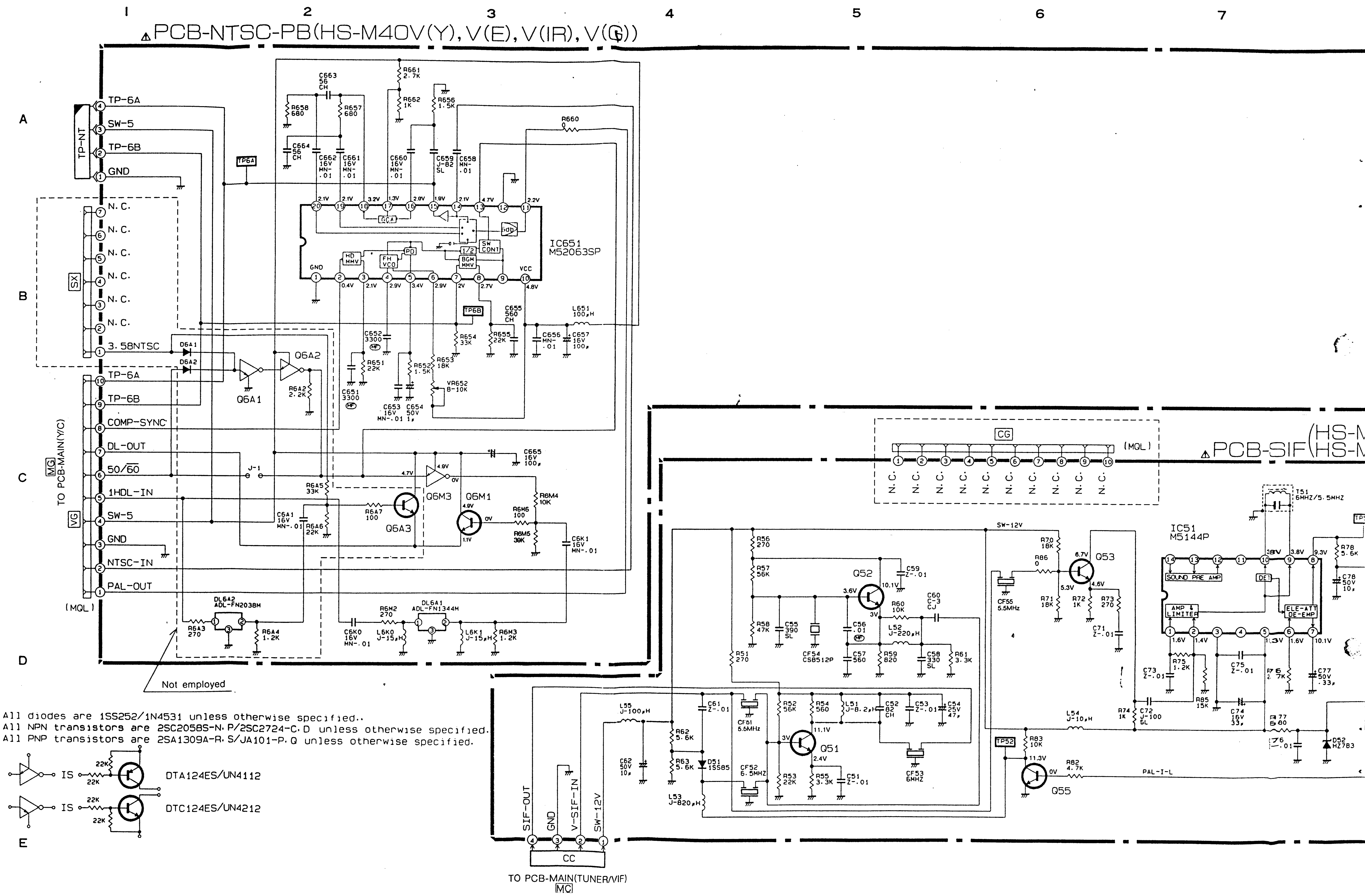
6. Resistors

Value	Not indicated = Ω K = kΩ(1000Ω) M = MΩ(1000kΩ)		
Wattage	Parts except for chips	Not indicated = 1/4W or 1/6W	
	Chips	Not indicated = 1/10W	
Tolerance	Not indicated =±5% D=±0.5% J=±5% F=±1% K=±10%		
Short	I	Parts except for chips	Not indicated : Carbon resistor S : Fixed composition resistor MB : Metal oxide film resistor(type B) CE : Cemented resister W : Wire wound resister M : Metal film resister MPC : Metal plate cement resister ML : Metal liner resister
	II	Chip	Not indicated : Chip resistor

7. This is a basic schematic diagram. Some sets may be subject to modification according to engineering improvement.

SPECIFIC SYMBOL

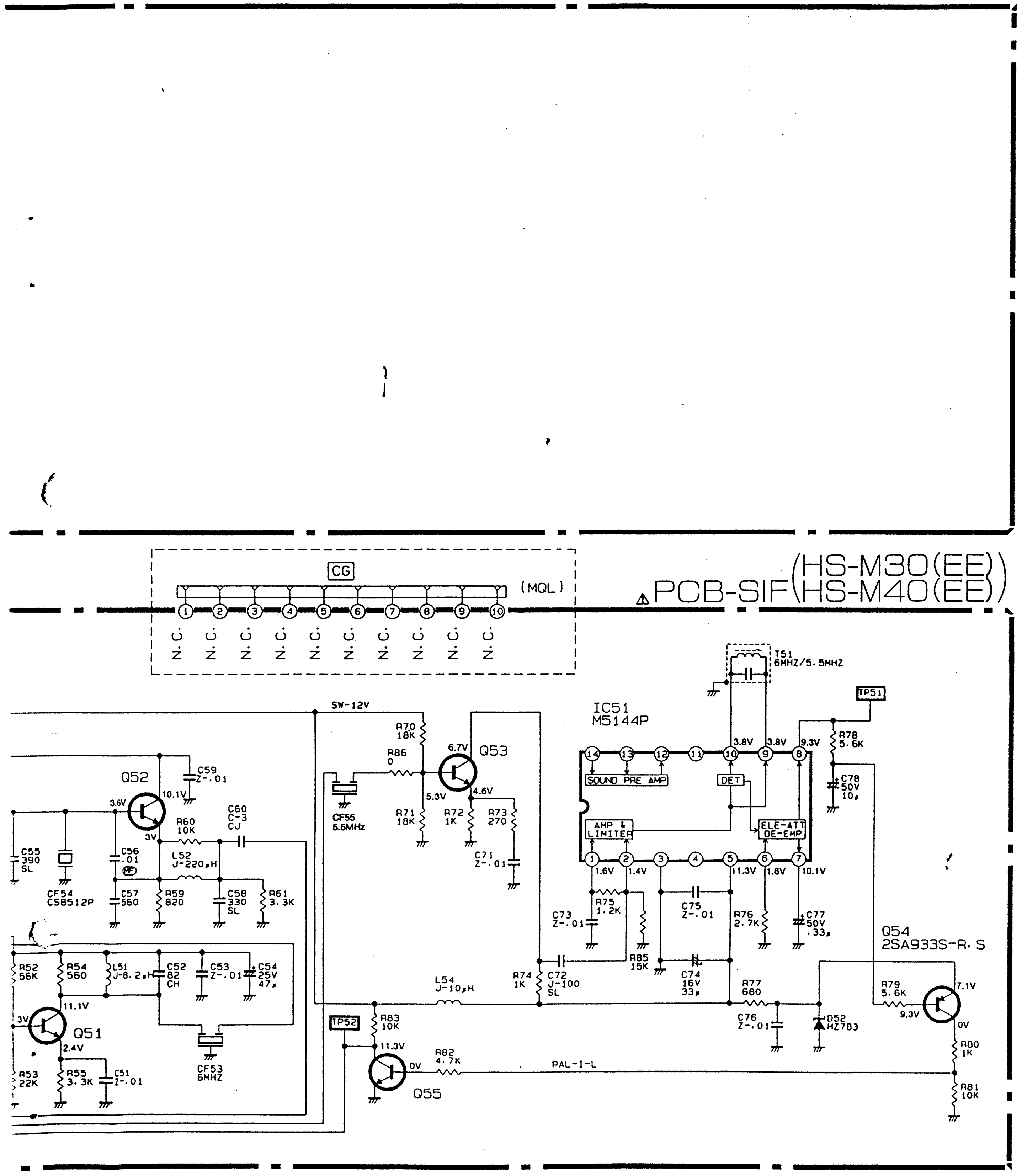

Zener Diode
Varicap
Thermistor
Fusible Resistor
Crystal unit
LE Diode
Photo Diode
Ceramic filter
PNP DIGITAL TRANSISTOR
NPN DIGITAL TRANSISTOR

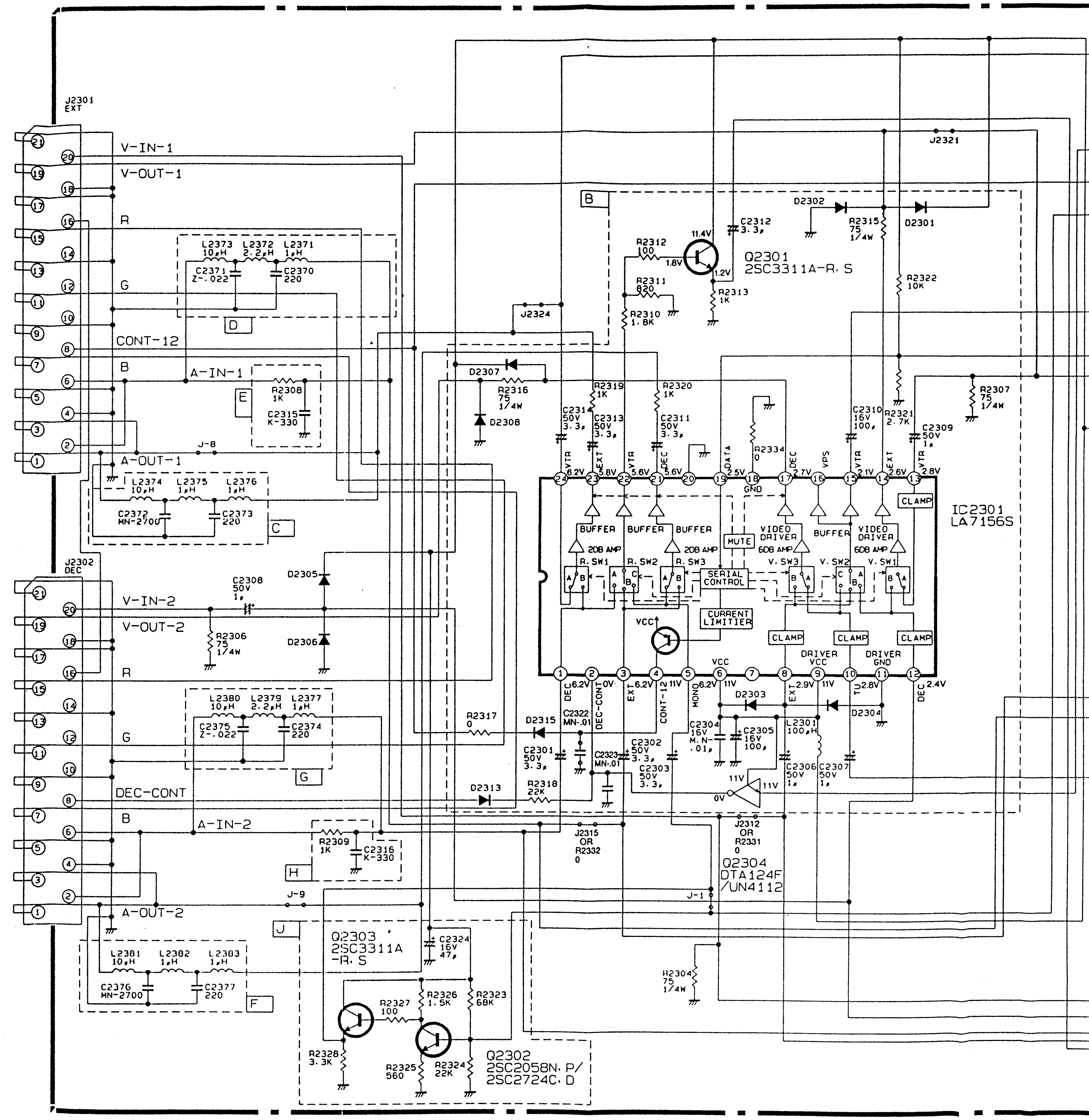

1
2
3
4
5
6
7
A
B
C
D
E
PCB-NTSC-PB(HS-M40V(Y), V(E), V(IR), V(G))
TP-NT
TP-6A
SW-5
TP-6B
GND
SX
N.C.
3.58NTSC
MG
VG
TO PCB-MAIN(Y/C)
TP-6A
TP-6B
COMP-SYNC
DL-OUT
50/60
1HDL-IN
SW-5
GND
NTSC-IN
PAL-OUT
(MQL)
TP6A
TP6B
IC651
M52063SP
GCA
HD MMV
FH VCO
PD
1/2
BGM MMV
SW CONT
GND
VCC
C663 56 CH
R661 2.7K
R662 1K
R656 1.5K
R658 680
R657 680
R660
C664 56 CH
C662 16V MN-.01
C661 16V MN-.01
C660 16V MN-.01
C659 J-82 SL
C658 MN-.01
C655 560 CH
L651 100μH
C652 3300
R655 22K
C656 MN-.01
C657 16V 100μ
R654 33K
R651 22K
R652 1.5K
R653 18K
VR652 B-10K
C651 3300
C653 16V MN-.01
C654 50V 1μ
D6A1
D6A2
Q6A1
Q6A2
R6A2 2.2K
J-1
R6A5 33K
R6A7 100
Q6A3
Q6M3
Q6M1
C665 16V 100μ
R6M4 10K
R6M6 100
R6M5 30K
C6A1 16V MN-.01
R6A6 22K
C6K1 16V MN-.01
DL6A2 ADL-FN2038M
DL6A1 ADL-FN1344M
R6A3 270
R6A4 1.2K
C6K0 16V MN-.01
L6K0 J-15μH
R6M2 270
L6K1 J-15μH
R6M3 1.2K
Not employed
IS
DTA124ES/UN4112
DTC124ES/UN4212
22K
CG
(MQL)
N.C.
PCB-SIF(HS-M
T51 6MHZ/5.5MHZ
IC51
M5144P
SOUND PRE AMP
DET
AMP & LIMITER
ELE-ATT DE-EMP
SW-12V
R56 270
R57 56K
R58 47K
C55 390 SL
Q52
C59 Z-.01
C60 C-3 CJ
R60 10K
L52 J-220μH
C56 .01
CF54 CSB512P
C57 560
R59 820
C58 330 SL
R61 3.3K
R51 270
CF55 5.5MHz
R70 18K
R86 0
Q53
R71 18K
R72 1K
R73 270
C71 Z-.01
R78 5.6K
C78 50V 10μ
C73 Z-.01
R75 1.2K
R85 15K
C75 Z-.01
C74 16V 33μ
R76 4.7K
C77 50V .33μ
R74 1K
C72 J-100 SL
L54 J-10μH
R77 680
C76 Z-.01
D52 HZ7B3
L55 J-100μH
C61 Z-.01
CF51 5.5MHz
R52 56K
R54 560
L51 J-8.2μH
C52 82 CH
C53 Z-.01
C54 25V 47μ
R62 5.6K
R63 5.6K
D51 1SS85
CF52 6.5MHZ
Q51
R53 22K
R55 3.3K
C51 Z-.01
CF53 6MHZ
TP52
R83 10K
Q55
R82 4.7K
PAL-I-L
C62 50V 10μ
L53 J-820μH
SIF-OUT
GND
V-SIF-IN
SW-12V
CC
TO PCB-MAIN(TUNER/VIF)
MC

All diodes are 1SS252/1N4531 unless otherwise specified..
All NPN transistors are 2SC2058S-N.P/2SC2724-C.D unless otherwise specified.
All PNP transistors are 2SA1309A-R.S/JA101-P.Q unless otherwise specified.

HS-M30V(E) / (EE) / V(G) / (Y) / V(Y)
HS-M40V(B) / V(E) / (EE) / V(G) / V(IR) / V(Y)

②

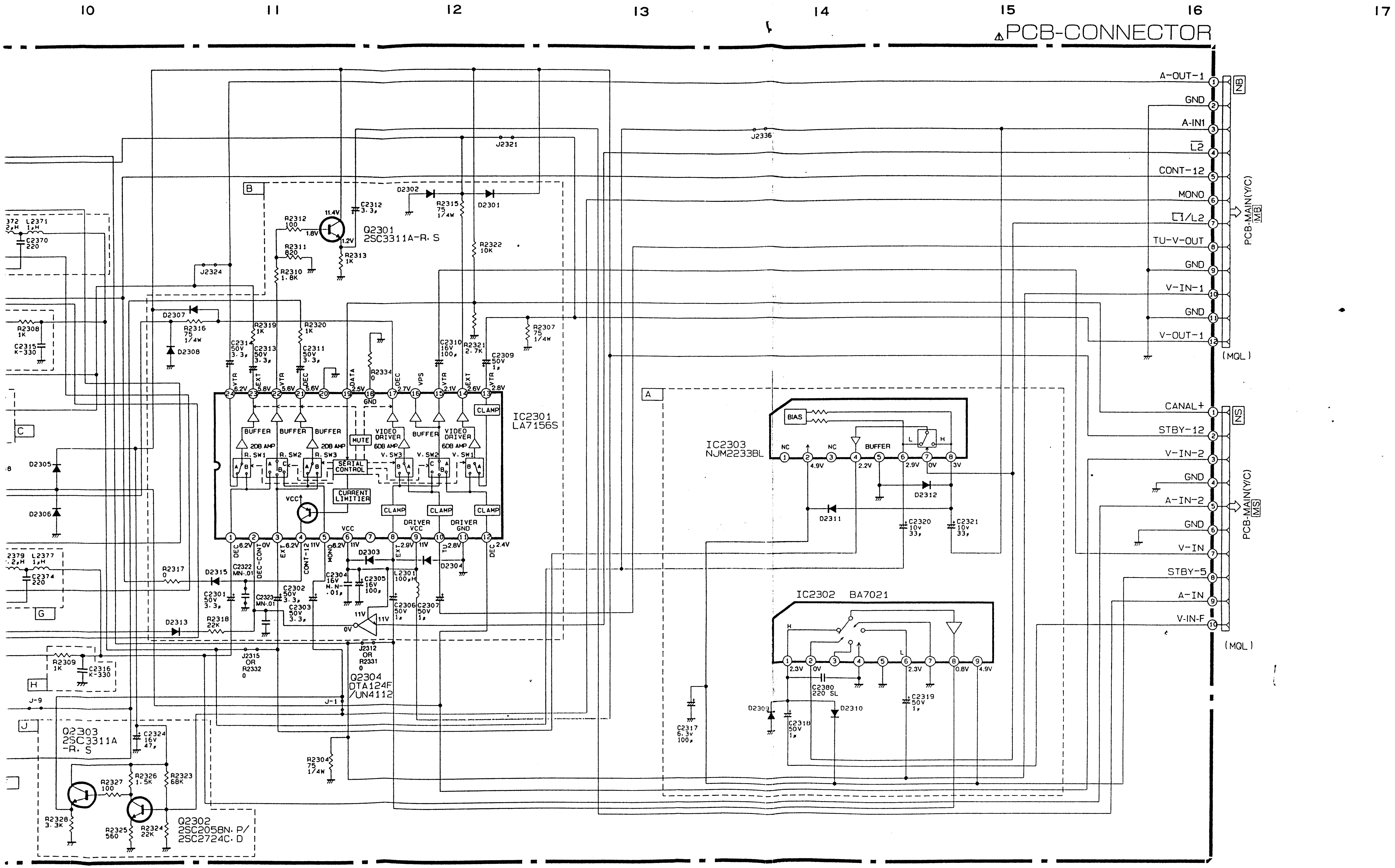

CG
(MQL)
N.C.
△PCB-SIF(HS-M30(EE) HS-M40(EE))
SW-12V
Q52
Q53
Q51
Q55
Q54 2SA933S-R.S
IC51 M5144P
SOUND PRE AMP
DET
AMP & LIMITER
ELE-ATT DE-EMP
T51 6MHZ/5.5MHZ
TP51
TP52
CF55 5.5MHz
CF54 CSB512P
CF53 6MHZ
L52 J-220μH
L51 J-8.2μH
L54 J-10μH
D52 HZ7B3
R70 18K
R86 0
R71 18K
R72 1K
R73 270
R78 5.6K
C78 50V 10μ
R60 10K
C60 C-3 CJ
C59 Z-.01
C55 390 SL
C56 .01
C57 560
R59 820
C58 330 SL
R61 3.3K
R52 56K
R54 560
C52 82 CH
C53 Z-.01
C54 25V 47μ
R53 22K
R55 3.3K
C51 Z-.01
C73 Z-.01
R75 1.2K
R85 15K
C75 Z-.01
C74 16V 33μ
R76 2.7K
C77 50V .33μ
C71 Z-.01
R74 1K
C72 J-100 SL
R77 680
C76 Z-.01
R79 5.6K
R83 10K
R82 4.7K
PAL-I-L
R80 1K
R81 10K
6.7V
5.3V
4.6V
3.6V
10.1V
3V
11.1V
2.4V
11.3V
0V
7.1V
9.3V
3.8V
1.6V
1.4V
1.8V


J2301 EXT
J2302 DEC
V-IN-1
V-OUT-1
R
G
CONT-12
B
A-IN-1
A-OUT-1
V-IN-2
V-OUT-2
DEC-CONT
A-IN-2
A-OUT-2
J-8
J-9
J-1
J2321
J2324
D2302
D2301
D2307
D2308
D2305
D2306
D2313
D2315
D2303
D2304
Q2301 2SC3311A-R.S
Q2303 2SC3311A -R.S
Q2302 2SC2058N.P/ 2SC2724C.D
Q2304 DTA124F /UN4112
IC2301 LA7156S
BUFFER
208 AMP
R.SW1
R.SW2
R.SW3
MUTE
VIDEO DRIVER
608 AMP
V.SW3
V.SW2
V.SW1
SERIAL CONTROL
CURRENT LIMITER
CLAMP
DRIVER VCC
DRIVER GND
VCC
VTR
EXT
DEC
DATA
GND
VPS
MONO
CONT-12
DEC-CONT
TU
J2312 OR R2331 0
J2315 OR R2332 0
L2373 10μH
L2372 2.2μH
L2371 1μH
C2371 Z-.022
C2370 220
L2374 10μH
L2375 1μH
L2376 1μH
C2372 MN-2700
C2373 220
L2380 10μH
L2379 2.2μH
L2377 1μH
C2375 Z-.022
C2374 220
L2381 10μH
L2382 1μH
L2383 1μH
C2376 MN-2700
C2377 220
R2308 1K
C2315 K-330
R2309 1K
C2316 K-330
C2308 50V 1μ
R2306 75 1/4W
R2312 100
R2311 820
R2310 1.8K
R2313 1K
C2312 3.3μ
R2315 75 1/4W
R2322 10K
R2316 75 1/4W
R2319 1K
R2320 1K
C2314 50V 3.3μ
C2313 50V 3.3μ
C2311 50V 3.3μ
R2334 0
C2310 16V 100μ
R2321 2.7K
C2309 50V 1μ
R2307 75 1/4W
R2317 0
R2318 22K
C2322 MN-.01
C2301 50V 3.3μ
C2323 MN-.01
C2302 50V 3.3μ
C2303 50V 3.3μ
C2304 16V M.N-.01μ
C2305 16V 100μ
L2301 100μH
C2306 50V 1μ
C2307 50V 1μ
R2304 75 1/4W
C2324 16V 47μ
R2327 100
R2326 1.5K
R2323 68K
R2328 3.3K
R2325 560
R2324 22K
B
C
D
E
F
G
H
J
11.4V
1.8V
1.2V
6.2V
5.8V
5.6V
2.5V
2.7V
2.1V
2.6V
2.8V
2.9V
11V
2.4V
0V

All diodes are 1SS252/1SS131 unless otherwise specified.

○ : Employed × : Not employed

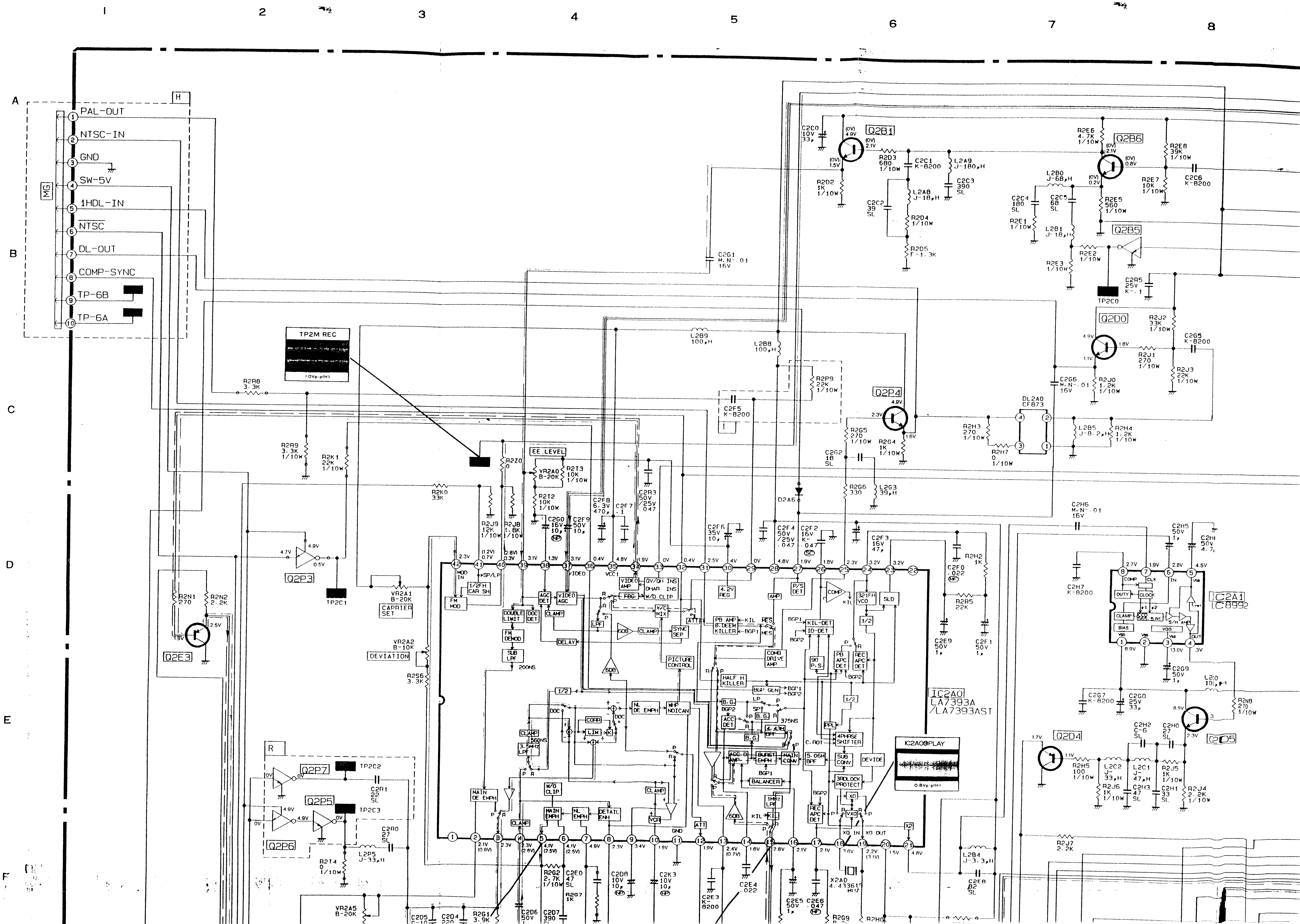
MODELS \ SYMBOL NO	J2315 /R2332	J23 /R2
HS-M30(Y),V(Y)	○	○
HS-M40V(Y)	×	×
HS-M40V(B),V(E),V(IR), HS-M30V(E)	×	×
HS-M30V(G)	○	○
HS-M40V(G)	×	×


10
11
12
13
14
15
16
17
PCB-CONNECTOR
A-OUT-1
GND
A-IN1
L2
CONT-12
MONO
L1/L2
TU-V-OUT
GND
V-IN-1
GND
V-OUT-1
NB
PCB-MAIN(Y/C)
MB
(MQL)
CANAL+
STBY-12
V-IN-2
GND
A-IN-2
GND
V-IN
STBY-5
A-IN
V-IN-F
NS
PCB-MAIN(Y/C)
MS
(MQL)
J2336
J2321
J2324
B
D2302
D2301
R2315 75 1/4W
R2322 10K
C2312 3.3μ
Q2301 2SC3311A-R. S
11.4V
1.8V
1.2V
R2312 100
R2311 820
R2310 1.8K
R2313 1K
D2307
R2316 75 1/4W
D2308
R2319 1K
R2320 1K
C2314 50V 3.3μ
C2313 50V 3.3μ
C2311 50V 3.3μ
R2334 0
C2310 16V 100μ
R2321 2.7K
C2309 50V 1μ
R2307 75 1/4W
IC2301 LA7156S
BUFFER
BUFFER
BUFFER
20B AMP
R. SW1
R. SW2
R. SW3
MUTE
VIDEO DRIVER
6DB AMP
V. SW3
V. SW2
V. SW1
SERIAL CONTROL
CURRENT LIMITIER
CLAMP
DRIVER VCC
DRIVER GND
VCC
D2303
L2301 100μH
D2304
C2304 16V M.N-.01μ
C2305 16V 100μ
C2306 50V 1μ
C2307 50V 1μ
C2301 50V 3.3μ
C2322 MN-.01
C2323 MN-.01
C2302 50V 3.3μ
C2303 50V 3.3μ
D2315
R2317 0
D2313
R2318 22K
J2315 OR R2332 0
J2312 OR R2331 0
Q2304 DTA124F /UN4112
J-1
J-9
R2304 75 1/4W
J
Q2303 2SC3311A -R. S
C2324 16V 47μ
R2327 100
R2326 1.5K
R2323 68K
R2328 3.3K
R2325 560
R2324 22K
Q2302 2SC2058N. P/ 2SC2724C. D
R2308 1K
C2315 K-330
D2305
D2306
C
G
H
R2309 1K
C2316 K-330
L2371 1μH
C2370 220
L2377 1μH
C2374 220
A
IC2303 NJM2233BL
BIAS
NC
NC
BUFFER
4.9V
2.2V
2.9V
0V
3V
D2312
D2311
C2320 10V 33μ
C2321 10V 33μ
IC2302 BA7021
2.3V
0V
2.3V
0.8V
4.9V
C2380 220 SL
C2319 50V 1μ
D2309
C2318 50V 1μ
D2310
C2317 6.3V 100μ

diodes are 1SS252/1SS131 unless otherwise specified.

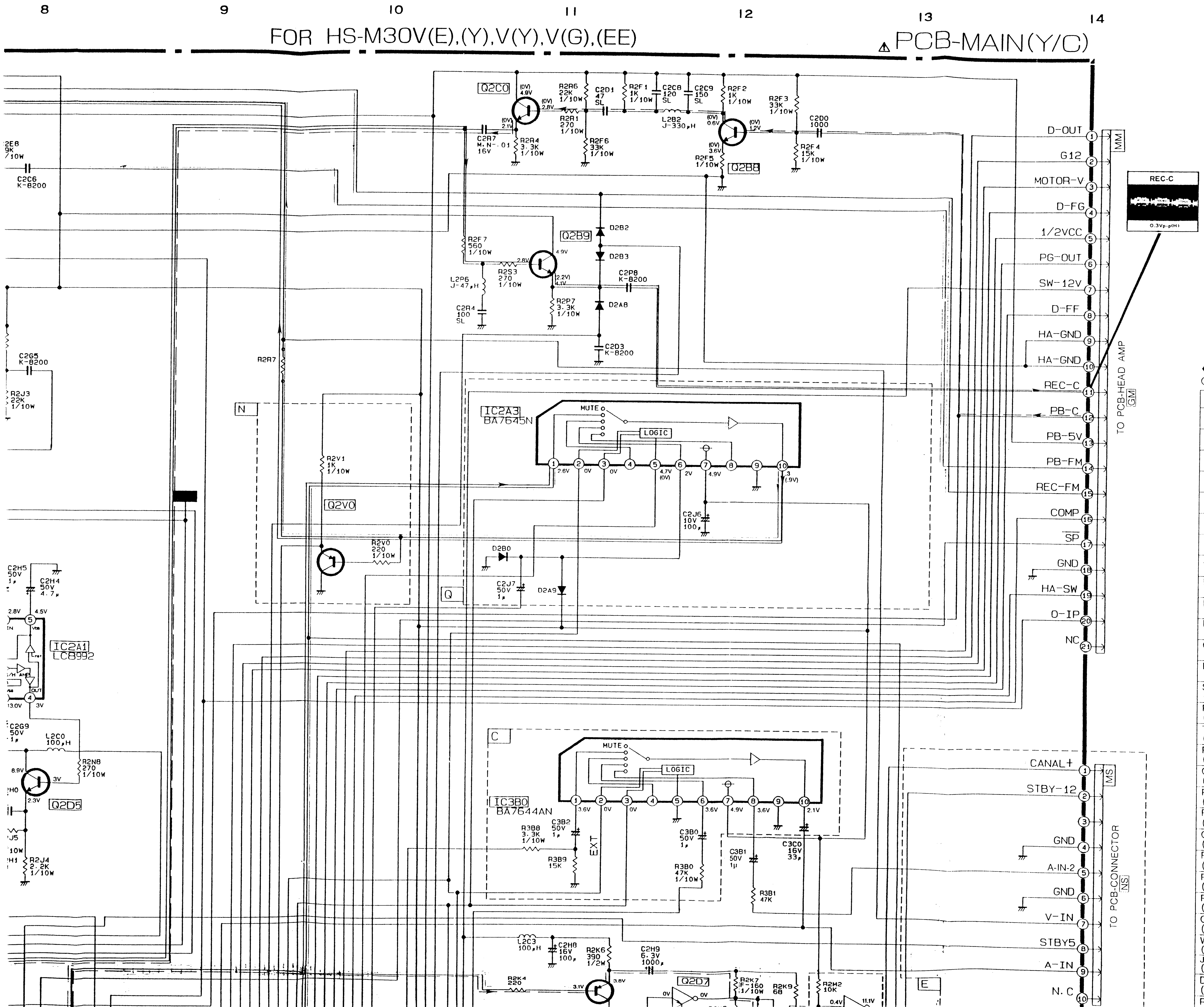
○ : Employed × : Not employed

MODELS \ SYMBOL NO	J2315 /R2332	J2312 /R2331	J2336	J AREA	A AREA	B AREA	C AREA	D AREA	E AREA	F AREA	G AREA	H AREA	J-8/J-9	J2324	J2321
HS-M30(Y),V(Y)	○	○	×	×	×	○	×	×	○	×	×	○	○	×	×
HS-M40V(Y)	×	×	×	×	○	○	×	×	○	×	×	○	○	×	×
HS-M40V(B),V(E),V(IR), HS-M30V(E)	×	×	○	×	×	×	×	×	○	×	×	○	J8	○	○
HS-M30V(G)	○	○	×	×	×	○	○	○	×	○	○	×	×	×	×
HS-M40V(G)	×	×	×	×	○	○	○	○	×	○	○	×	×	×	×


1
2
3
4
5
6
7
8
A
B
C
D
E
F
H
MG
PAL-OUT
NTSC-IN
GND
SW-5V
1HDL-IN
NTSC
DL-OUT
COMP-SYNC
TP-6B
TP-6A
TP2M REC
1.0Vp-p(H)
R2R8 3.3K
R2R9 3.3K 1/10W
R2K1 22K 1/10W
R2K0 33K
Q2P3
TP2C1
Q2E3
R2N1 270
R2N2 2.2K
VR2A1 B-20K
CARRIER SET
VR2A2 B-10K
DEVIATION
R2S6 3.3K
EE LEVEL
VR2A0 B-20K
R2T3 10K 1/10W
R2T2 10K 1/10W
R2Z0 0
R2J9 12K 1/10W
R2J8 1.8K 1/10W
C2G0 16V 10μ NP
C2F9 50V 10μ
C2F8 6.3V 470μ
C2F7 .1
C2R3 50V /25V .047
C2F6 35V 10μ
C2F4 50V /25V .047
C2F2 16V K-.047 SC
C2F3 16V 47μ
C2F0 .022 MF
R2H2 1K
R2R5 22K
C2E9 50V 1μ
C2F1 50V 1μ
D2A6
C2G1 M.N-.01 16V
L2B9 100μH
L2B8 100μH
C2F5 K-8200
R2P9 22K 1/10W
Q2B1
C2C0 10V 33μ
R2D3 680 1/10W
C2C1 K-8200
L2A9 J-180μH
C2C3 390 SL
R2D2 1K 1/10W
C2C2 39 SL
L2A8 J-18μH
R2D4 1/10W
R2D5 F-1.3K
Q2B6
R2E6 4.7K 1/10W
R2E8 39K 1/10W
R2E7 10K 1/10W
C2C6 K-8200
L2B0 J-68μH
C2C4 180 SL
C2C5 68 SL
R2E5 560 1/10W
R2E1 1/10W
L2B1 J-18μH
Q2B5
R2E2 1/10W
R2E3 1/10W
C2R5 25V K-.1
TP2C0
Q2D0
R2J2 33K 1/10W
C2G5 K-8200
R2J1 270 1/10W
R2J0 1.2K 1/10W
R2J3 22K 1/10W
C2G6 M.N-.01 16V
Q2P4
R2G5 270 1/10W
R2G4 1K 1/10W
C2G2 18 SL
R2G6 330
L2G3 39μH
DL2A0 CF873
R2H3 270 1/10W
R2H7 0 1/10W
L2B5 J-8.2μH
R2H4 1.2K 1/10W
C2H6 M.N-.01 16V
C2H5 50V 1μ
C2H4 50V 4.7μ
C2H7 K-8200
IC2A1 LC8992
COMP
CLK
IN
VDD
DUTY
CLOCK
CLAMP
BIAS
VGG
OUT
C2G9 50V 1μ
L2I0 10μH
R2N8 270 1/10W
C2G7 K-8200
C2G0 25V 33μ
Q2D4
Q2D5
C2H2 C-6 SL
C2H0 27 SL
R2H5 100 1/10W
L2C2 J-33μH
L2C1 J-47μH
R2J5 1K 1/10W
R2J6 1K 1/10W
C2H3 47 SL
C2H1 33 SL
R2J4 2.2K 1/10W
R2J7 2.2K
L2B4 J-3.3μH
C2E8 82 SL
IC2A0 LA7393A /LA7393AST
IC2A0 PLAY
0.8Vp-p(H)
FM MOD
1/2FH CAR SH
AGC DET
VIDEO AGC
DOUBLE LIMIT
DOC DET
CLAMP
FM DEMOD
SUB LPF
DELAY
VIDEO AMP
FBC
QV/QH INS
DHAR INS
W/D CLIP
Y/C MIX
SYNC SEP
LPF
6DB
PB AMP
DEEM KILLER
KIL
MES
BGP1
BGP2
4.2V REG
AMP
P/S DET
COMP
321FH VCO
SLD
1/2
KIL-DET
ID-DET
90 P.S
PB APC DET
REC APC DET
COMB DRIVE AMP
PICTURE CONTROL
HALF H KILLER
BGP GEN
NL DE EMPH
MHP NOICAN
CORR
LIM
DOC
B.G
ACC DET
4.43M BPF
ACC AMP
BURST EMPH
MAIN CONV
BALANCER
1MHz LPF
4PHASE SHIFTER
SUB CONV
DEVIDE
3RDLOCK PROTECT
XO
VXO
X2
REC APC DET
5.06M BPF
C.ROT
PPL
3.5MHz LPF
560NS
200NS
375NS
MAIN DE EMPH
W/D CLIP
MAIN EMPH
NL EMPH
DETAIL ENH
VCA
ATT
GND
XO IN
XO OUT
R
Q2P7
TP2C2
Q2P5
TP2C3
Q2P6
C2R1 22 SL
C2R0 27 SL
R2T4 0 1/10W
L2P5 J-33μH
R2G2 2.7K 1/10W
C2E0 47 SL
R2G7 1K
C2D8 10V 10μ NP
C2K3 10V 10μ NP
C2E3 K-8200
C2E4 .022
C2E5 50V 1μ
C2E6 .047 MF
X2A0 4.433619 MHz
VR2A5 B-20K
C2O5
C2D4 220
R2G1 3.9K
C2D6 50V
C2D7 390
R2G9
R2H0

FOR HS-M30V(E),(Y),V(Y),V(G),(EE)

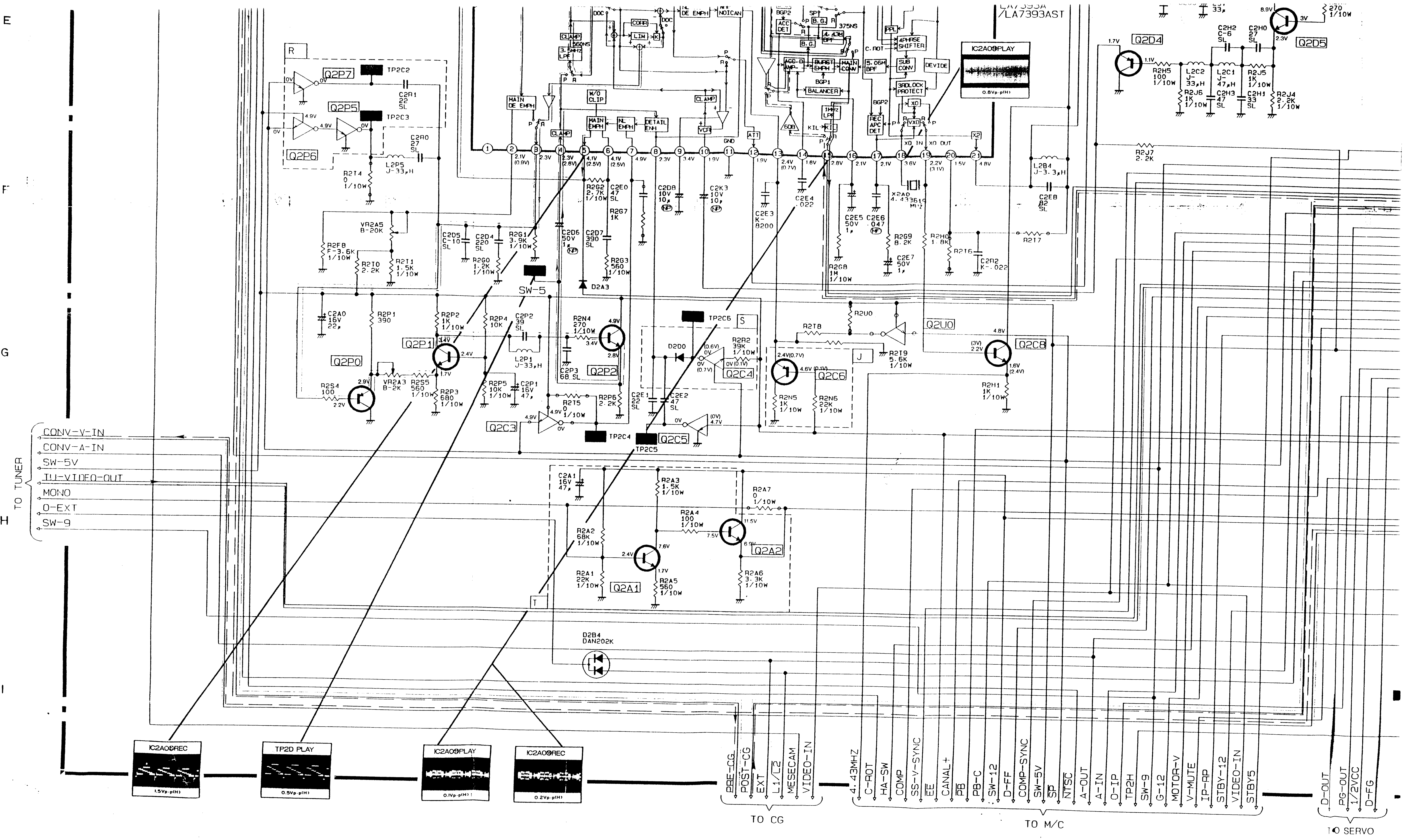
⚠PCB-MAIN(Y/C)

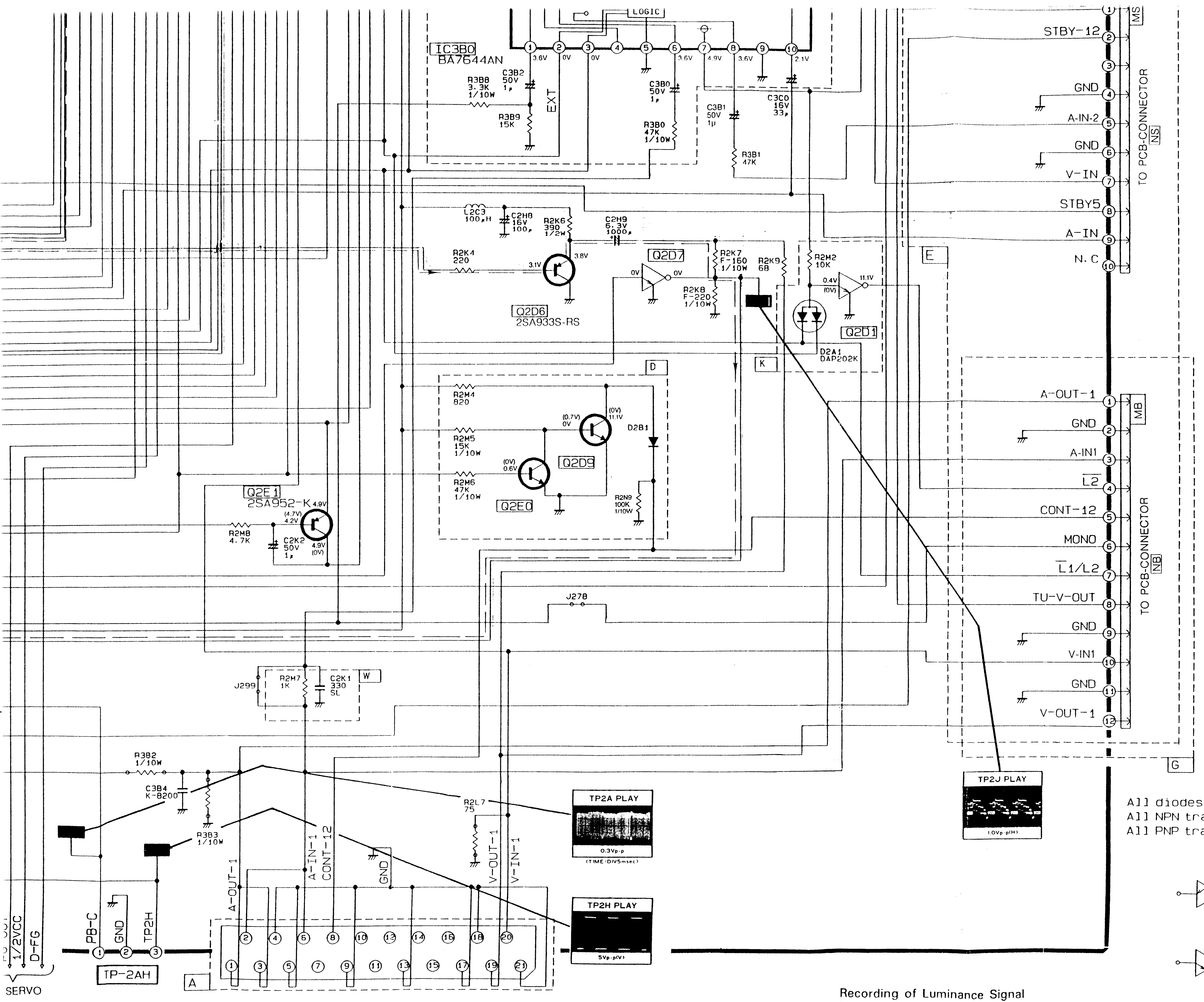

8
9
10
11
12
13
14
15
16
Q2C0
Q2B8
Q2B9
Q2V0
Q2D5
Q2D7
IC2A3 BA7645N
IC3B0 BA7644AN
IC2A1 LC8992
MUTE
LOGIC
EXT
N
Q
C
E
D-OUT
G12
MOTOR-V
D-FG
1/2VCC
PG-OUT
SW-12V
D-FF
HA-GND
HA-GND
REC-C
PB-C
PB-5V
PB-FM
REC-FM
COMP
SP
GND
HA-SW
D-IP
NC
MM
TO PCB-HEAD AMP GM
REC-C
0.3Vp-p(H)
CANAL+
STBY-12
GND
A-IN-2
GND
V-IN
STBY5
A-IN
N.C
MS
TO PCB-CONNECTOR NS

← : Means same as left side

○ : Employed × : Not Employed

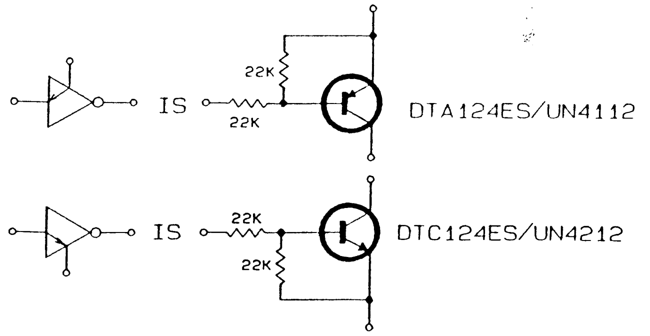
ITEM	E	Y	G	EE
A AREA (i-10, 11)	×	×	×	○
C AREA (e-12)	○	×	×	○
D AREA (g, h-11, 12)	○	○	○	○
E AREA (f, g-14)	○	○	○	×
H AREA (b-1)	×	×	×	×
I AREA (C-6)	×	×	×	×
J AREA (g-6)	○	○	○	○
K AREA (f-12)	×	○	○	×
R2E1 (b-7)	2.7K	←	1.5K	2.7K
N AREA (c-10)	○	×	○	×
Q AREA (c, d-11, 12)	○	×	×	○
R AREA (e, f-2, 3)	×	×	×	×
S AREA (g-5)	×	×	×	×
R2K1 (c-2)	×	×	×	×
T AREA (h-4, 5)	×	○	○	×
R2A7 (h-5)	○	×	×	○
Q2C3 (g-4)	×	×	×	×
R2L7 (i-11)	○	×	×	○
R2F5 (a-12)	270	←	←	←
Q2P3 (d-2)	×	×	×	×
R2E2 (b-7)	220	←	←	←
R2E3 (b-7)	×	×	×	×
R2R7 (c-9)	220	×	0Ω (J633)	220
C2E0/R2G7 (f-4)	×	×	×	×
W AREA (h-10)	×	×	×	○
J299 (h-10)	○	×	×	×
D2A6 (d-5)	○	○	○	○
R2R8				


E
F
G
H
I
LA7393A
/LA7393AST
IC2A0⑲PLAY
0.8Vp-p(H)
MAIN DE EMPH
W/O CLIP
MAIN EMPH
NL EMPH
DETAIL ENH
CLAMP
VCR
ATT
GND
CORR
LIM
DOC
DE EMPH
NOICAN
3.58MHz LPF
560NS
BGP2
ACC DET
B.G
SP
375NS
4.43M BPF
ACC AMP
BURST EMPH
MAIN CONV
BGP1
BALANCER
1MHz LPF
KIL
REC APC DET
PPL
C.ROT
4PHASE SHIFTER
5.06M BPF
SUB CONV
DEVIDE
3RDLOCK PROTECT
XO
VXO
XO IN
XO OUT
X2
Q2P7
TP2C2
Q2P5
TP2C3
Q2P6
C2R1 22 SL
C2R0 27 SL
L2P5 J-33μH
R2T4 0 1/10W
VR2A5 B-20K
R2F8 F-3.6K 1/10W
R2T0 2.2K
R2T1 1.5K 1/10W
C2D5 C-10 SL
C2D4 220 SL
R2G0 1.2K 1/10W
R2G1 3.9K 1/10W
C2D6 50V 1μ
R2G2 2.7K 1/10W
C2E0 47 SL
R2G7 1K
C2D7 390 SL
R2G3 560 1/10W
D2A3
C2D8 10V 10μ
C2K3 10V 10μ
C2E3 K-8200
C2E4 .022
C2E5 50V 1μ
C2E6 .047
X2A0 4.433619 MHz
R2G9 8.2K
C2E7 50V 1μ
R2G8 1M 1/10W
R2H0 1.8K
R2I6
C2N2 K-.022
R2I7
L2B4 J-3.3μH
C2E8 82 SL
R2J7 2.2K
Q2D4
Q2D5
R2H5 100 1/10W
L2C2 J-33μH
L2C1 J-47μH
R2J5 1K 1/10W
C2H2 C-6 SL
C2H0 27 SL
R2J6 1K 1/10W
C2H3 47 SL
C2H1 33 SL
R2J4 2.2K 1/10W
270 1/10W
SW-5
C2A0 16V 22μ
R2P1 390
R2P2 1K 1/10W
R2P4 10K
C2P2 39 SL
L2P1 J-33μH
R2N4 270 1/10W
C2P3 68 SL
Q2P0
Q2P1
Q2P2
VR2A3 B-2K
R2S5 560 1/10W
R2S4 100
R2P3 680 1/10W
R2P5 10K 1/10W
C2P1 16V 47μ
R2T5 0 1/10W
R2P6 2.2K
Q2C3
TP2C4
TP2C6
D2D0
R2R2 39K 1/10W
Q2C4
C2E1 22 SL
C2E2 47 SL
Q2C5
TP2C5
R2T8
R2U0
Q2U0
R2T9 5.6K 1/10W
Q2C6
R2N5 1K 1/10W
R2N6 22K 1/10W
Q2C8
R2H1 1K 1/10W
C2A1 16V 47μ
R2A3 1.5K 1/10W
R2A7 0 1/10W
R2A4 100 1/10W
R2A2 68K 1/10W
R2A1 22K 1/10W
Q2A1
R2A5 560 1/10W
R2A6 3.3K 1/10W
Q2A2
D2B4 DAN202K
CONV-V-IN
CONV-A-IN
SW-5V
TU-VIDEO-OUT
MONO
O-EXT
SW-9
TO TUNER
IC2A0⑫REC
1.5Vp-p(H)
TP2D PLAY
0.5Vp-p(H)
IC2A0⑲PLAY
0.1Vp-p(H)
IC2A0⑲REC
0.2Vp-p(H)
PRE-CG
POST-CG
EXT
L1/L2
MESECAM
VIDEO-IN
TO CG
4.43MHZ
C-ROT
HA-SW
COMP
SS-V-SYNC
EE
CANAL+
PB
PB-C
SW-12
D-FF
COMP-SYNC
SW-5V
SP
NTSC
A-OUT
A-IN
O-IP
TP2H
SW-9
G-12
MOTOR-V
V-MUTE
IP-RP
STBY-12
VIDEO-IN
STBY5
TO M/C
D-OUT
PG-OUT
1/2VCC
D-FG
TO SERVO


LOGIC
IC3B0
BA7644AN
3.6V
0V
0V
3.6V
4.9V
3.6V
2.1V
R3B8
3.3K
1/10W
C3B2
50V
1μ
EXT
R3B9
15K
C3B0
50V
1μ
R3B0
47K
1/10W
C3B1
50V
1μ
R3B1
47K
C3C0
16V
33μ
L2C3
100μH
C2H8
16V
100μ
R2K6
390
1/2W
C2H9
6.3V
1000μ
R2K4
220
3.1V
3.8V
Q2D6
2SA933S-RS
Q2D7
0V
0V
R2K7
F-150
1/10W
R2K8
F-220
1/10W
R2K9
68
R2M2
10K
0.4V
(0V)
11.1V
Q2D1
D2A1
DAP202K
K
E
D
R2M4
820
R2M5
15K
1/10W
R2M6
47K
1/10W
(0.7V)
0V
(0V)
11.1V
(0V)
0.6V
Q2D9
Q2E0
D2B1
R2N9
100K
1/10W
Q2E1
2SA952-K
4.9V
(4.7V)
4.2V
4.9V
(0V)
R2M8
4.7K
C2K2
50V
1μ
J278
J299
R2M7
1K
C2K1
330
SL
W
STBY-12
GND
A-IN-2
GND
V-IN
STBY5
A-IN
N. C
MS
TO PCB-CONNECTOR
NS
A-OUT-1
GND
A-IN1
L2
CONT-12
MONO
L1/L2
TU-V-OUT
GND
V-IN1
GND
V-OUT-1
MB
TO PCB-CONNECTOR
NB
G
R3B2
1/10W
C3B4
K-8200
R3B3
1/10W
R2L7
75
A-OUT-1
A-IN-1
CONT-12
GND
V-OUT-1
V-IN-1
PB-C
GND
TP2H
1/2VCC
D-FG
SERVO
TP-2AH
A
TP2A PLAY
0.3Vp-p
(TIME:DIV5msec)
TP2H PLAY
5Vp-p(V)
TP2J PLAY
1.0Vp-p(H)

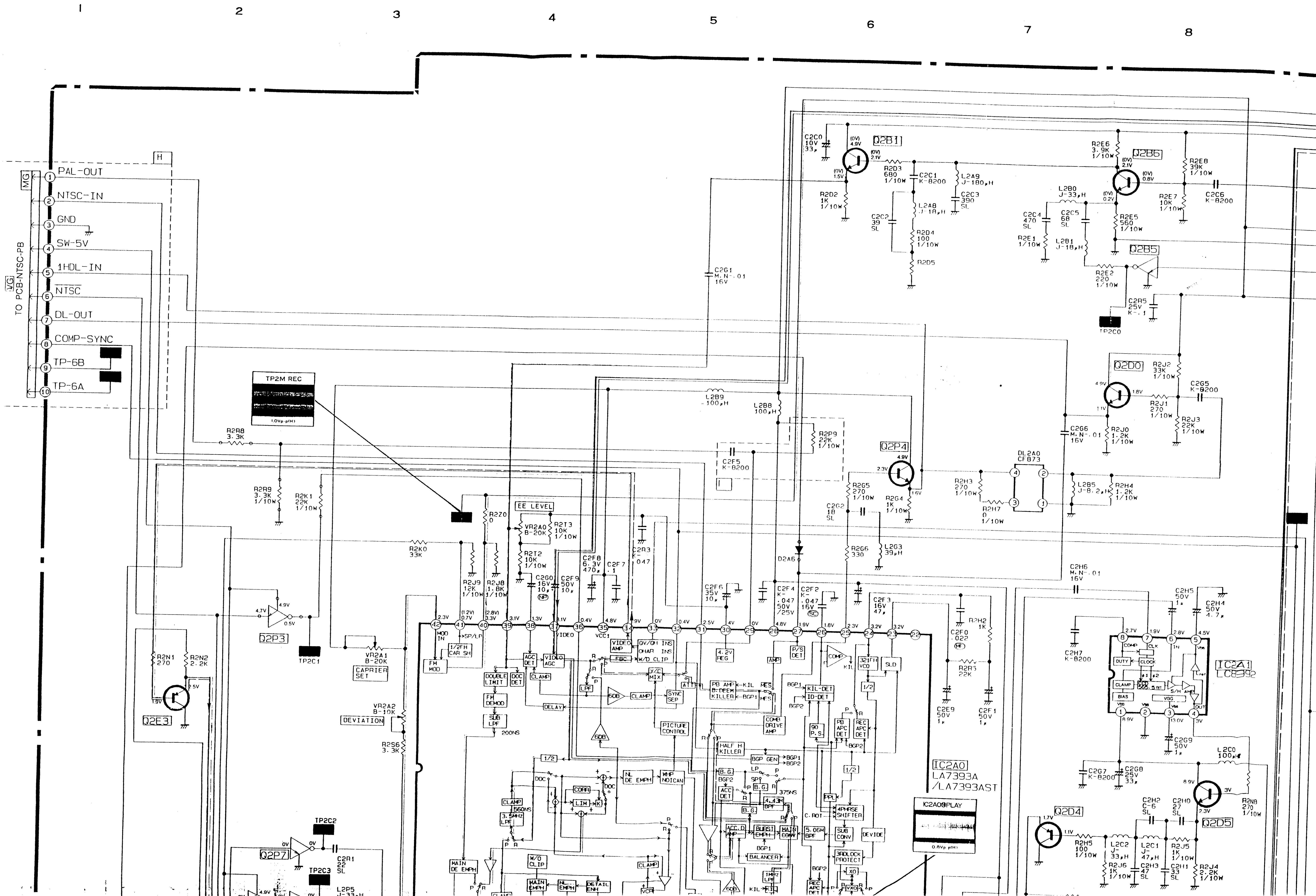
	HS-M30V(E)	HS-M30(Y) HS-M30V(Y)	HS-M30V(G)	HS-M30(EE)
Q2C3 (g-4)	×	×	×	×
R2L7 (i-11)	○	×	×	○
R2F5 (a-12)	270	←	←	←
Q2P3 (d-2)	×	×	×	×
R2E2 (b-7)	220	←	←	←
R2E3 (b-7)	×	×	×	×
R2R7 (c-9)	220	×	0Ω (J633)	220
C2E0/R2G7 (f-4)	×	×	×	×
W AREA (h-10)	×	×	×	○
J299 (h-10)	○	×	×	×
D2A6 (d-5)	○	○	○	○
R2R8 (c-2)	×	×	×	×
R2R9 (c-2)	×	×	×	×
R2T8 (g-5)	5.6K	←	←	←
R2D5 (b-6)	1.3K	←	←	←
R2T6 (f-6)	×	×	×	×
R2T7 (f-7)	×	×	×	×
J278 (h-12)	×	○	○	×
R3B2 (j-9)	0Ω	1.2K	←	0Ω
R3B3 (i-9)	4.7K	←	←	←
C2R1 (f-3)	22P	←	←	←
R2T4 (f-3)	○	○	○	○
R2T5 (g-4)	○	○	○	○
R2D4 (b-6)	120	←	←	←
R2U0 (g-5)	0	←	←	←
Q2U0 (g-5)	×	×	×	×
C3B1/R3B1 (e-12)	○	×	×	×
D2B4 (i-4)	×	×	○	×

All diodes are 1SS252 /1SS131 unless otherwise specified.
All NPN transistors are 2SC3053-C·D unless otherwise specified.
All PNP transistors are 2SA1235-E·F unless otherwise specified.

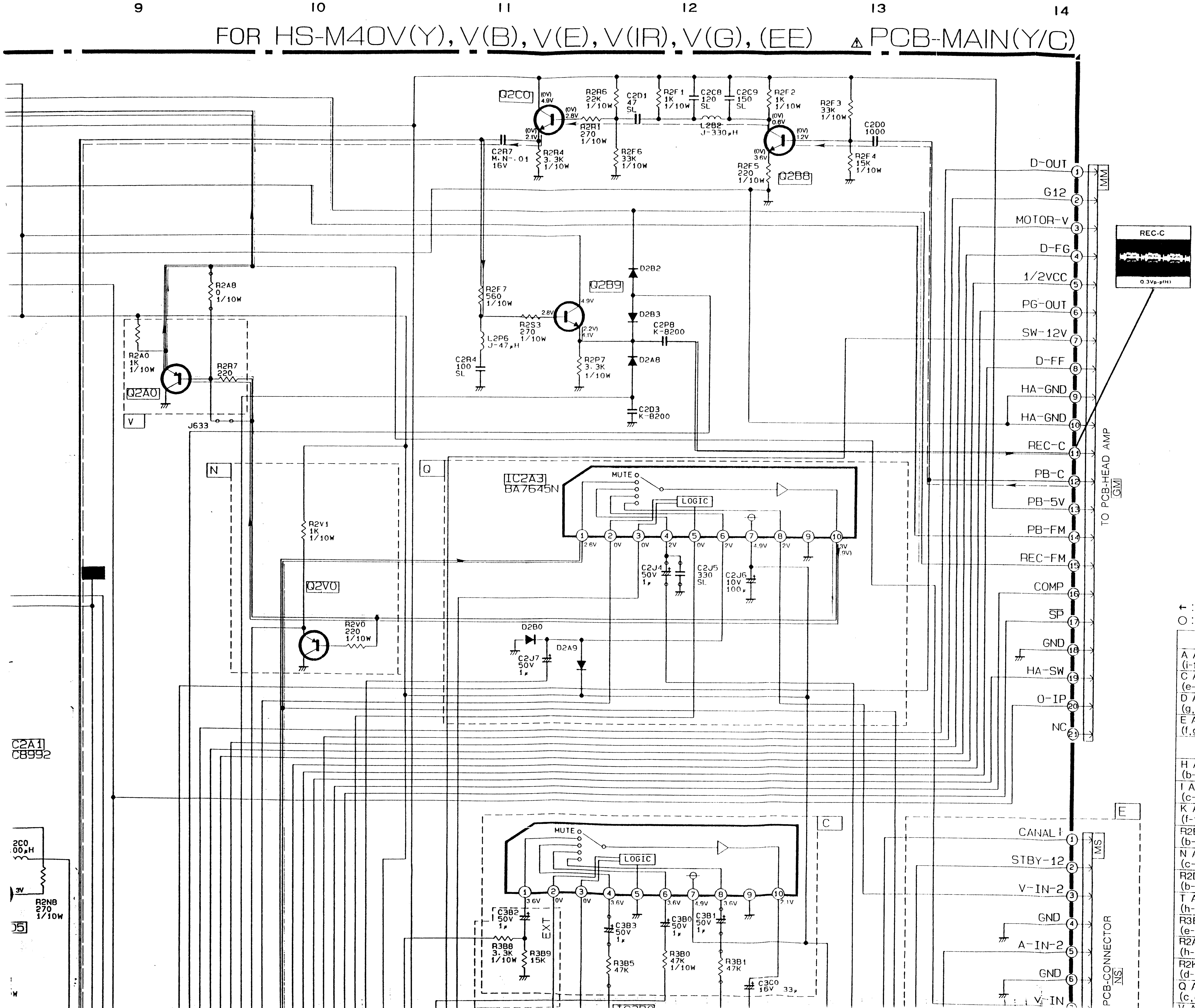

IS
22K
22K
DTA124ES/UN4112
IS
22K
22K
DTC124ES/UN4212

Recording of Luminance Signal
Playback of Luminance Signal
Recording of Color Signal
Playback of Color Signal

HS-M30V(E) / (EE) / V(G) / (Y) / V(Y)
HS-M40V(B) / V(E) / (EE) / V(G) / V(IR) / V(Y)

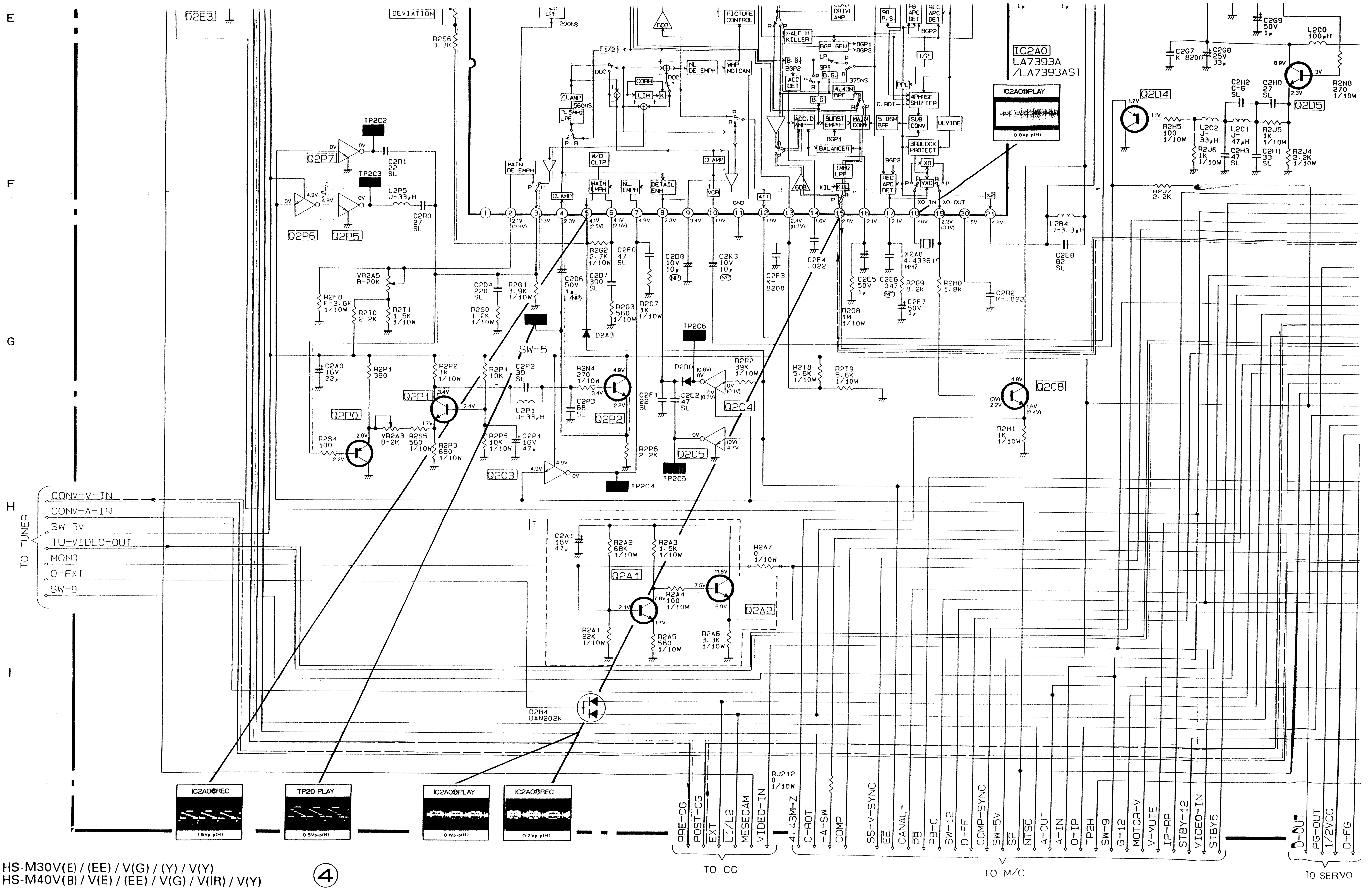

1
2
3
4
5
6
7
8
TO PCB-NTSC-PB
VG
MG
H
PAL-OUT
NTSC-IN
GND
SW-5V
1HDL-IN
NTSC
DL-OUT
COMP-SYNC
TP-6B
TP-6A
TP2M REC
1.0Vp-p(H)
R2R8 3.3K
R2R9 3.3K 1/10W
R2K1 22K 1/10W
R2K0 33K
Q2P3
TP2C1
R2N1 270
R2N2 2.2K
Q2E3
VR2A1 B-20K
CARRIER SET
VR2A2 B-10K
DEVIATION
R2S6 3.3K
TP2C2
Q2P7
C2R1 22 SL
TP2C3
L2P5 J-33μH
R2Z0 0
EE LEVEL
VR2A0 B-20K
R2T3 10K 1/10W
R2T2 10K 1/10W
R2J9 12K 1/10W
R2J8 1.8K 1/10W
C2G0 16V 10μ NP
C2F9 50V 10μ
C2F8 6.3V 470μ
C2F7 .1
C2R3 K-.047
C2F6 35V 10μ
C2F4 K-.047 50V/25V
C2F2 K-.047 16V SC
D2A6
C2F3 16V 47μ
C2F0 .022 MF
R2H2 1K
R2R5 22K
C2E9 50V 1μ
C2F1 50V 1μ
C2G1 M.N-.01 16V
L2B9 100μH
L2B8 100μH
C2F5 K-8200
R2P9 22K 1/10W
Q2P4
R2G5 270 1/10W
R2G4 1K 1/10W
C2G2 18 SL
R2G6 330
L2G3 39μH
C2C0 10V 33μ
Q2B1
R2D3 680 1/10W
C2C1 K-8200
L2A9 J-180μH
C2C3 390 SL
R2D2 1K 1/10W
C2C2 39 SL
L2A8 J-18μH
R2D4 100 1/10W
R2D5
R2E6 3.9K 1/10W
Q2B6
R2E8 39K 1/10W
L2B0 J-33μH
C2C4 470 SL
C2C5 68 SL
R2E1 1/10W
L2B1 J-18μH
R2E5 560 1/10W
R2E7 10K 1/10W
C2C6 K-8200
Q2B5
R2E2 220 1/10W
C2R5 25V K-.1
TP2C0
Q2D0
R2J2 33K 1/10W
C2G5 K-8200
R2J1 270 1/10W
R2J3 22K 1/10W
C2G6 M.N-.01 16V
R2J0 1.2K 1/10W
DL2A0 CF873
R2H3 270 1/10W
R2H7 0 1/10W
L2B5 J-8.2μH
R2H4 1.2K 1/10W
C2H6 M.N-.01 16V
C2H5 50V 1μ
C2H4 50V 4.7μ
C2H7 K-8200
IC2A1 LC8392
COMP
CLK
DUTY
CLOCK
CLAMP
CCD
S/H
AMP
BIAS
VCG
OUT
C2G9 50V 1μ
C2G7 K-8200
C2G8 25V 33μ
L2C0 100μH
R2N8 270 1/10W
Q2D5
Q2D4
R2H5 100 1/10W
L2C2 J-33μH
L2C1 J-47μH
C2H2 C-6 SL
C2H0 27 SL
C2H3 47 SL
C2H1 33 SL
R2J5 1K 1/10W
R2J6 1K 1/10W
R2J4 2.2K 1/10W
IC2A0 LA7393A /LA7393AST
IC2A0 PLAY
0.8Vp-p(H)
MOD IN
SP/LP
VIDEO
VCC1
FM MOD
1/2FH CAR SH
AGC DET
VIDEO AGC
CLAMP
DOUBLE LIMIT
DOC DET
FM DEMOD
SUB LPF
200NS
DELAY
LPF
6DB
Y/C MIX
FBC
VIDEO AMP
OV/OH INS
CHAR INS
W/D CLIP
SYNC SEP
ATT
PB AMP
B.DEEM
KILLER
KIL
MES
BGP1
BGP2
4.2V REG
AMP
P/S DET
COMP
KIL-DET
ID-DET
321FH VCO
SLD
1/2
PICTURE CONTROL
COMB DRIVE AMP
HALF H KILLER
BGP GEN
90 P.S.
PB APC DET
REC APC DET
ACC DET
B.G
SP
375NS
4.43M BPF
PPL
4PHASE SHIFTER
C.ROT
ACC.D AMP
BURST EMPH
MAIN CONV
BALANCER
5.06M BPF
SUB CONV
DEVIDE
3RDLOCK PROTECT
XO
1MHz LPF
REC APC DET
NL DE EMPH
WHP NOICAN
CORR
LIM
CLAMP
560NS
3.5MHz LPF
MAIN DE EMPH
W/D CLIP
MAIN EMPH
NL EMPH
DETAIL ENH
VCR

FOR HS-M40V(Y), V(B), V(E), V(IR), V(G), (EE)   ⚠PCB-MAIN(Y/C)


9
10
11
12
13
14
15
16
Q2C0
Q2B8
Q2B9
Q2A0
Q2V0
R2A6 22K 1/10W
C2D1 47 SL
R2F1 1K 1/10W
C2C8 120 SL
C2C9 150 SL
R2F2 1K 1/10W
R2F3 33K 1/10W
C2D0 1000
R2R1 270 1/10W
L2B2 J-330μH
C2R7 M.N-.01 16V
R2R4 3.3K 1/10W
R2F6 33K 1/10W
R2F5 220 1/10W
R2F4 15K 1/10W
D2B2
D2B3
D2A8
C2P8 K-8200
C2D3 K-8200
R2F7 560 1/10W
R2S3 270 1/10W
L2P6 J-47μH
C2R4 100 SL
R2P7 3.3K 1/10W
R2A8 0 1/10W
R2A0 1K 1/10W
R2R7 220
J633
V
N
Q
R2V1 1K 1/10W
R2V0 220 1/10W
D2B0
D2A9
C2J7 50V 1μ
IC2A3 BA7645N
MUTE
LOGIC
C2J4 50V 1μ
C2J5 330 SL
C2J6 10V 100μ
C2A1 C8992
R2N8 270 1/10W
C3B2 50V 1μ
EXT
R3B8 3.3K 1/10W
R3B9 15K
C3B3 50V 1μ
R3B5 47K
C3B0 50V 1μ
R3B0 47K 1/10W
C3B1 50V 1μ
R3B1 47K
C3C0 16V 33μ
C
E
D-OUT
G12
MOTOR-V
D-FG
1/2VCC
PG-OUT
SW-12V
D-FF
HA-GND
HA-GND
REC-C
PB-C
PB-5V
PB-FM
REC-FM
COMP
SP
GND
HA-SW
0-IP
NC
MM
GM
TO PCB-HEAD AMP
REC-C
0.3Vp-p(H)
CANAL I
STBY-12
V-IN-2
GND
A-IN-2
GND
V-IN
MS
NS
PCB-CONNECTOR

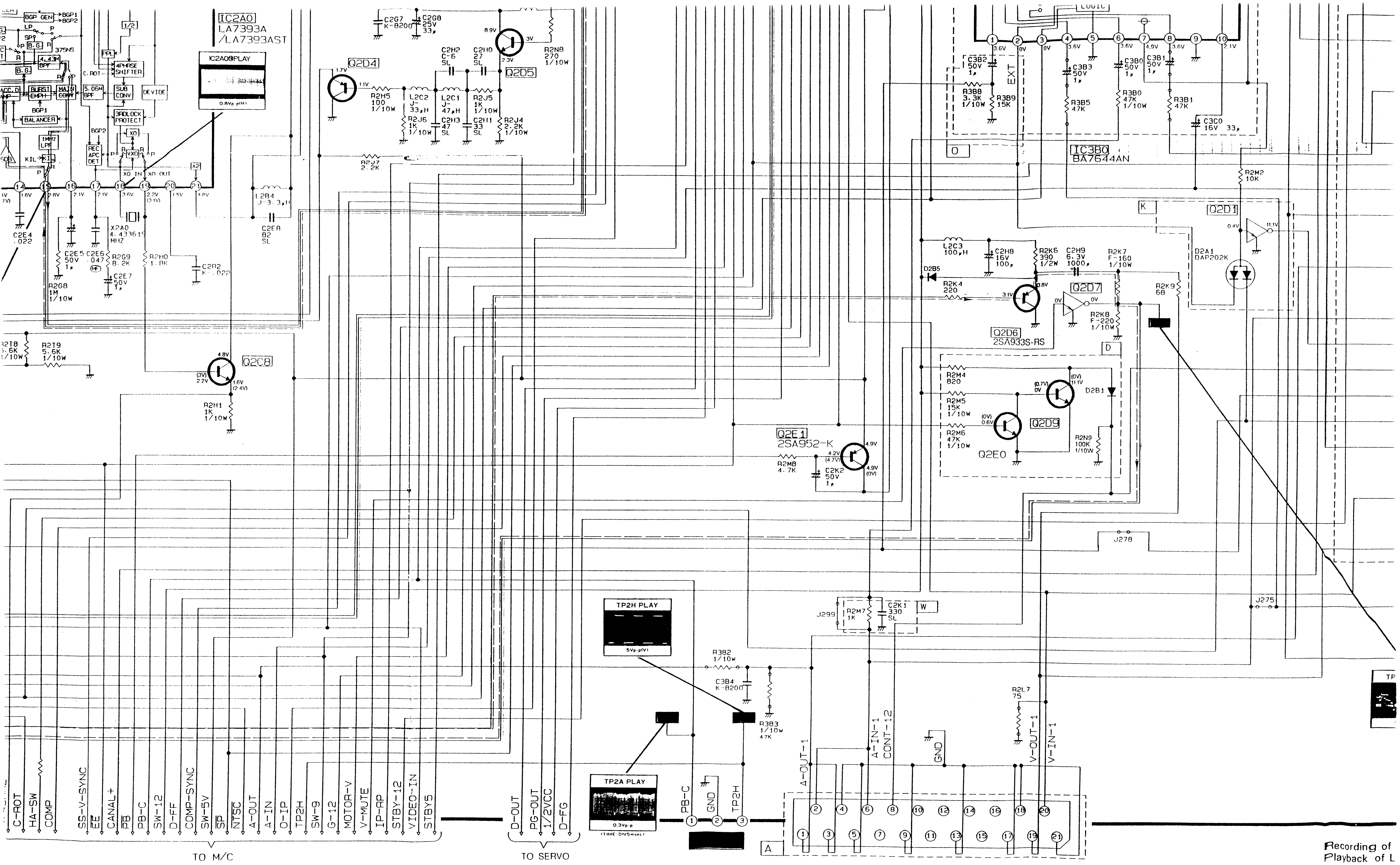
← : Means same as left side
○ : Employed × : Not Employed

ITEM	Y	B	E	IR	G	EE
A AREA (i-10, 11)	×	×	×	×	×	○
C AREA (e-12)	×	○	○	○	×	○
D AREA (g, h-11, 12)	○	○	○	○	○	○
E AREA (f, g-14)	○	○	○	○	○	×
H AREA (b-1)	○	×	○	○	○	×
I AREA (c-6)	○	×	○	○	○	×
K AREA (f-12, 13)	○	×	×	×	○	×
R2E1 (b-7)	2.7K	←	←	←	1.2K	2.7K
N AREA (c-10)	×	○	○	×	○	×
R2D5 (b-7)	1.5K	←	←	←	1K	1.5K
T AREA (h-4, 5)	○	×	×	×	○	×
R3B1/C3B1 (e-12)	○	○	○	○	×	×
R2A7 (h-5)	×	○	○	○	×	○
R2K1 (d-2)	○	×	○	○	○	×
Q AREA (c, d-12, 13)	×	○	○	○	×	○


E
F
G
H
I
IC2A0
LA7393A
/LA7393AST
IC2A0⑱PLAY
0.8Vp-p(H)
DEVIATION
PICTURE CONTROL
HALF H KILLER
BGP GEN
NL DE EMPH
WHP NOICAN
CORR
LIM
CLAMP
3.5MHz LPF
MAIN DE EMPH
W/D CLIP
MAIN EMPH
NL EMPH
DETAIL ENH
VCR
ATT
ACC DET
ACC AMP
BURST EMPH
MAIN CONV
BALANCER
4.43M BPF
5.06M BPF
4PHASE SHIFTER
SUB CONV
DEVIDE
3RDLOCK PROTECT
XO
VXO
REC APC DET
PB APC DET
1MHz LPF
KIL
X2
XO IN
XO OUT
GND
6DB
Q2E3
Q2P7
Q2P6
Q2P5
Q2P0
Q2P1
Q2P2
Q2C3
Q2C4
Q2C5
Q2C8
Q2D4
Q2D5
Q2A1
Q2A2
TP2C2
TP2C3
TP2C4
TP2C5
TP2C6
SW-5
D2A3
D2D0
D2B4
DAN202K
X2A0
4.433619 MHz
CONV-V-IN
CONV-A-IN
SW-5V
TU-VIDEO-OUT
MONO
O-EXT
SW-9
TO TUNER
IC2A0⑤REC
1.5Vp-p(H)
TP2D PLAY
0.5Vp-p(H)
IC2A0⑮PLAY
0.1Vp-p(H)
IC2A0⑮REC
0.2Vp-p(H)
RJ212
0
1/10W
PRE-CG
POST-CG
EXT
L1/L2
MESECAM
VIDEO-IN
TO CG
4.43MHZ
C-ROT
HA-SW
COMP
SS-V-SYNC
EE
CANAL+
PB
PB-C
SW-12
D-FF
COMP-SYNC
SW-5V
SP
NTSC
A-OUT
A-IN
O-IP
TP2H
SW-9
G-12
MOTOR-V
V-MUTE
IP-RP
STBY-12
VIDEO-IN
STBY5
TO M/C
D-OUT
PG-OUT
1/2VCC
D-FG
TO SERVO

HS-M30V(E) / (EE) / V(G) / (Y) / V(Y)
HS-M40V(B) / V(E) / (EE) / V(G) / V(IR) / V(Y)

④

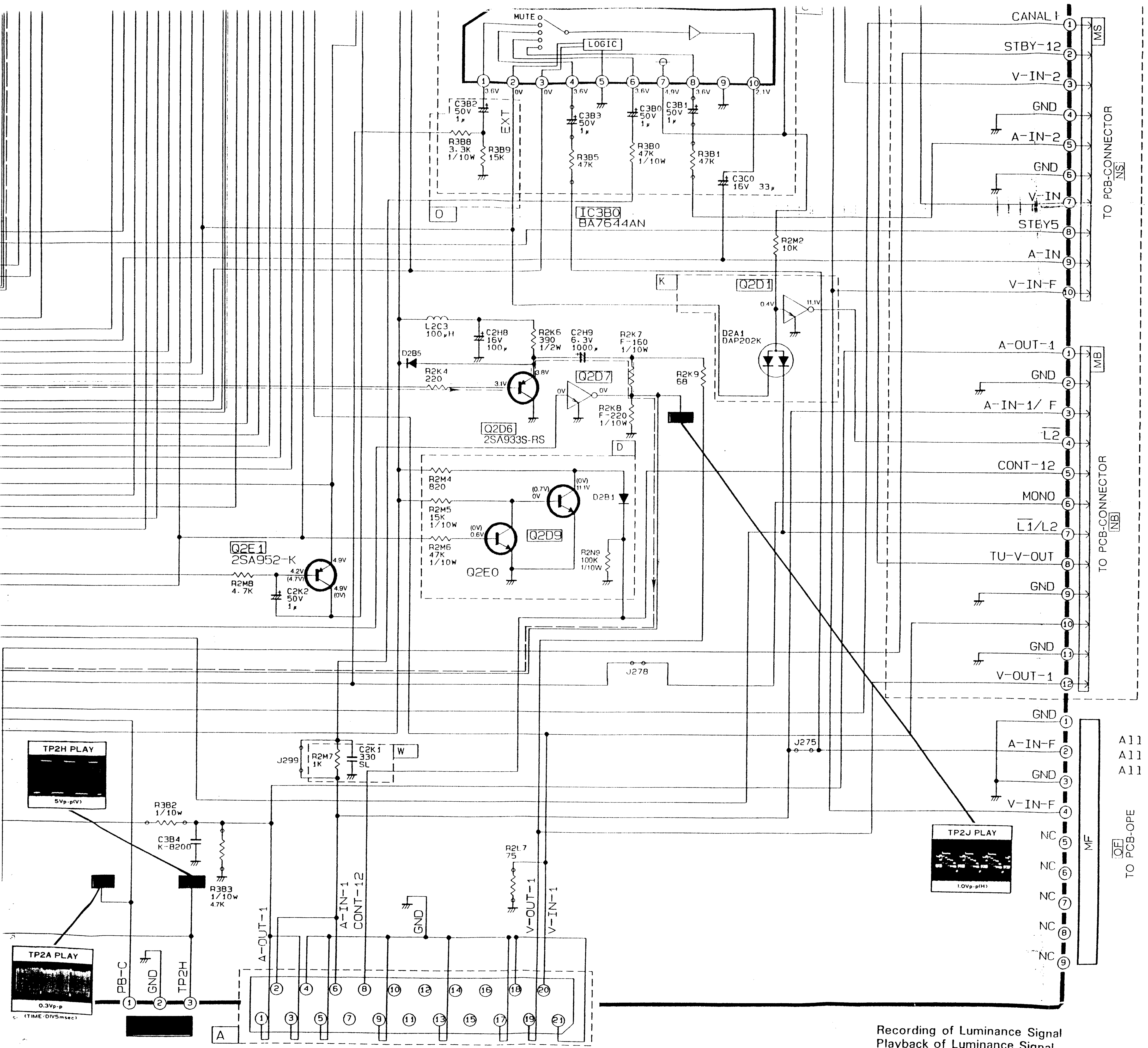

IC2A0
LA7393A
/LA7393AST
IC2A0⑲PLAY
0.8Vp-p(H)
BGP GEN
BGP1
BGP2
1/2
B.G.
4.43M BPF
375NS
4PHASE SHIFTER
C.ROT
5.06M BPF
SUB CONV
DEVIDE
ACC.D AMP
BURST EMPH
MAIN CONV
BALANCER
3RDLOCK PROTECT
REC APC DET
XO
VXO
1MHZ LPF
KIL
XO IN
XO OUT
X2
X2A0
4.433619 MHZ
C2E4 .022
C2E5 50V 1μ
C2E6 .047
R2G9 8.2K
C2E7 50V 1μ
R2G8 1M 1/10W
R2H0 1.8K
C2A2 K .022
L2B4 J 3.3μH
C2E8 82 SL
Q2D4
Q2D5
C2G7 K-8200
C2G8 25V 33μ
R2N8 270 1/10W
R2H5 100 1/10W
L2C2 J 33μH
L2C1 J 47μH
C2H2 C-6 SL
C2H0 27 SL
R2J5 1K 1/10W
R2J6 1K 1/10W
C2H3 47 SL
C2H1 33 SL
R2J4 2.2K 1/10W
R2J7 2.2K
Q2C8
R2T8 5.6K 1/10W
R2T9 5.6K 1/10W
R2H1 1K 1/10W
IC3B0
BA7644AN
LOGIC
EXT
C3B2 50V 1μ
R3B8 3.3K 1/10W
R3B9 15K
C3B3 50V 1μ
R3B5 47K
C3B0 50V 1μ
R3B0 47K 1/10W
C3B1 50V 1μ
R3B1 47K
C3C0 16V 33μ
R2M2 10K
Q2D1
D2A1 DAP202K
L2C3 100μH
C2H8 16V 100μ
R2K6 390 1/2W
C2H9 6.3V 1000μ
R2K7 F-160 1/10W
D2B5
R2K4 220
Q2D7
Q2D6
2SA933S-RS
R2K8 F-220 1/10W
R2K9 68
R2M4 820
R2M5 15K 1/10W
R2M6 47K 1/10W
D2B1
Q2D9
Q2E0
R2N9 100K 1/10W
Q2E1
2SA952-K
R2M8 4.7K
C2K2 50V 1μ
J278
J275
J299
R2M7 1K
C2K1 330 SL
W
K
D
O
A
TP2H PLAY
5Vp-p(V)
TP2A PLAY
0.3Vp-p
(TIME-DIV5msec)
R3B2 1/10W
C3B4 K-8200
R3B3 1/10W 4.7K
R2L7 75
C-ROT
HA-SW
COMP
SS-V-SYNC
EE
CANAL+
PB
PB-C
SW-12
D-FF
COMP-SYNC
SW-5V
SP
NTSC
A-OUT
A-IN
D-IP
TP2H
SW-9
G-12
MOTOR-V
V-MUTE
IP-RP
STBY-12
VIDEO-IN
STBY5
TO M/C
D-OUT
PG-OUT
1/2VCC
D-FG
TO SERVO
PB-C
GND
TP2H
A-OUT-1
A-IN-1
CONT-12
GND
V-OUT-1
V-IN-1

Recording of

Playback of L

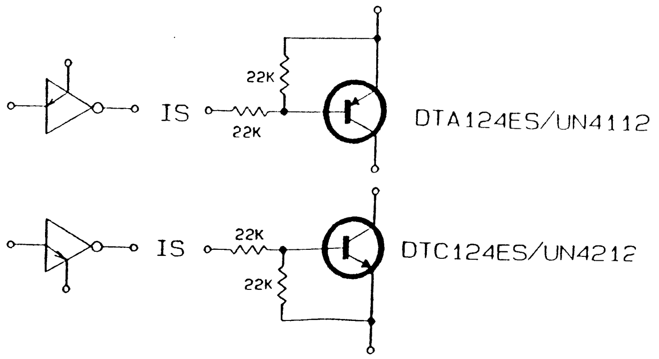
Recording of

Playback of C


MUTE
LOGIC
IC3B0
BA7644AN
EXT
C3B2 50V 1μ
R3B8 3.3K 1/10W
R3B9 15K
C3B3 50V 1μ
R3B5 47K
C3B0 50V 1μ
R3B0 47K 1/10W
C3B1 50V 1μ
R3B1 47K
C3C0 16V 33μ
3.6V
0V
4.9V
2.1V
O
K
Q2D1
R2M2 10K
D2A1 DAP202K
0.4V
11.1V
L2C3 100μH
C2H8 16V 100μ
R2K6 390 1/2W
C2H9 6.3V 1000μ
R2K7 F-160 1/10W
D2B5
R2K4 220
3.1V
3.8V
Q2D7
Q2D6
2SA933S-RS
R2K8 F-220 1/10W
R2K9 68
D
R2M4 820
R2M5 15K 1/10W
R2M6 47K 1/10W
(0.7V) 0V
(0V) 11.1V
(0V) 0.6V
D2B1
Q2D9
Q2E0
R2N9 100K 1/10W
Q2E1
2SA952-K
R2M8 4.7K
4.2V (4.7V)
4.9V
4.9V (0V)
C2K2 50V 1μ
J278
J275
J299
R2M7 1K
C2K1 330 SL
W
CANAL I
STBY-12
V-IN-2
GND
A-IN-2
V-IN
STBY5
A-IN
V-IN-F
MS
NS
TO PCB-CONNECTOR
A-OUT-1
A-IN-1/ F
L2
CONT-12
MONO
L1/L2
TU-V-OUT
V-OUT-1
MB
NB
A-IN-F
NC
MF
OE
TO PCB-OPE
TP2H PLAY
5Vp-p(V)
TP2J PLAY
1.0Vp-p(H)
TP2A PLAY
0.3Vp-p
(TIME:DIV5msec)
R3B2 1/10W
C3B4 K-8200
R3B3 1/10W 4.7K
R2L7 75
PB-C
GND
TP2H
A-OUT-1
A-IN-1
CONT-12
GND
V-OUT-1
V-IN-1
A

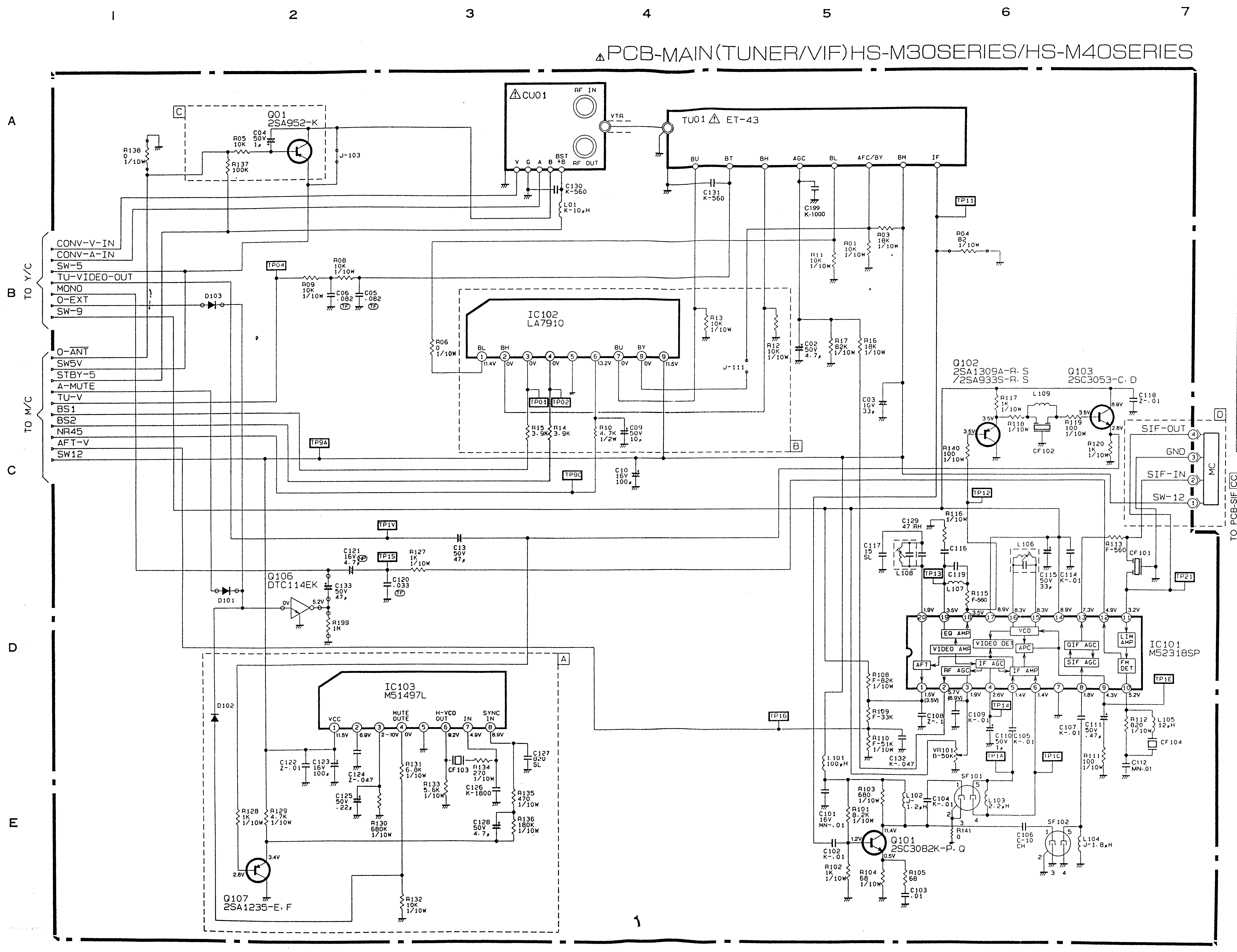
	HS-M40V(Y)	HS-M40V(B)	HS-M40V(E)	HS-M40(IR)	HS-M40V(G)	HS-M40(EE)
R2E1 (b-7)	2.7K	←	←	←	1.2K	2.7K
N AREA (c-10)	×	○	○	×	○	×
R2D5 (b-7)	1.5K	←	←	←	1K	1.5K
T AREA (h-4,5)	○	×	×	×	○	×
R3B1/C3B1 (e-12)	○	○	○	○	×	×
R2A7 (h-5)	×	○	○	○	×	○
R2K1 (d-2)	○	×	○	○	○	×
Q AREA (c,d-12,13)	×	○	○	○	×	○
V AREA (b-9,10)	×	○	○	○	×	○
R2A8/J633 (b-10)	×	×	×	×	○	×
R2L7 (i-11)	×	×	×	×	×	○
C2J5 (d-12)	×	○	○	○	×	○
Q2P3 (d-2)	○	×	○	○	○	×
C2J4 (d-12)	×	○	○	○	×	○
R3B5/C3B3 (e-12)	×	○	○	○	×	○
O AREA (e-11)	×	○	○	○	×	○
J275 (h-13)	○	×	×	×	○	×
W AREA (h-10)	×	×	×	×	×	○
J299 (h-10)	×	○	○	○	×	×
D2A6 (d-6)	○	×	○	×	○	○
R2R8 (c-2)	○	×	○	○	○	×
R2R9 (d-2)	○	×	○	○	○	×
J278 (h-12)	○	×	×	×	○	×
R3B2 (i-9)	1.2K	0Ω	←	←	1.2K	0Ω
D2B4 (i-4)	×	×	×	×	○	×

All diodes are 1SS252/1SS131 unless otherwise specified.
All NPN transistors are 2SC3053-C.D unless otherwise specified.
All PNP transistors are 2SA1234-E.F unless otherwise specified.


IS
22K
22K
DTA124ES/UN4112
IS
22K
22K
DTC124ES/UN4212

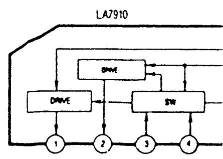
Recording of Luminance Signal
Playback of Luminance Signal
Recording of Color Signal
Playback of Color Signal

⚠PCB-MAIN(TUNER/VIF)HS-M30SERIES/HS-M40SERIES


1
2
3
4
5
6
7
8
A
B
C
D
E
⚠CU01
RF IN
RF OUT
VTR
TU01 ⚠ ET-43
BU BT BH AGC BL AFC/BY BM IF
Q01 2SA952-K
IC102 LA7910
IC103 M51497L
IC101 M52318SP
Q101 2SC3082K-P.Q
Q102 2SA1309A-R.S /2SA933S-R.S
Q103 2SC3053-C.D
Q106 DTC114EK
Q107 2SA1235-E.F
TO Y/C
CONV-V-IN
CONV-A-IN
SW-5
TU-VIDEO-OUT
MONO
O-EXT
SW-9
TO M/C
O-ANT
SW5V
STBY-5
A-MUTE
TU-V
BS1
BS2
NR45
AFT-V
SW12
SIF-OUT
GND
SIF-IN
SW-12
MC
TO PCB-SIF CC
EQ AMP
VIDEO AMP
VIDEO DET
VCO
APC
QIF AGC
SIF AGC
LIM AMP
FM DET
AFT
RF AGC
IF AGC
IF AMP
VCC
MUTE OUTE
H-VCO OUT
IN
SYNC IN
SF101
SF102
CF101
CF102
CF103
CF104
D101
D102
D103
TP01 TP02 TP04 TP9A TP9C TP1V TP1S TP11 TP12 TP13 TP14 TP1A TP1C TP1E TP16 TP21

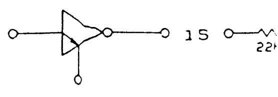
	(Y)	(B)	(P)
A AREA	○	×	×
B AREA	○	×	○
C AREA	×	×	×
D AREA	×	×	×
L102	1.2μ	1.2μ	1.2μ
R105	×	×	×
CF101	○	○	○
C103	×	×	×
C116	×	×	×
C119	18SL	15SL	18SL
L109	J-5.6μH	J-8.2μH	J-5.6μH
L107	39μ	56μ	39μ
R113	F-560	F-560	F-560
R118	F-150	F-390	F-150
R116	×	×	×
D103	×	×	×
D101	○	×	×
Q106	○	×	×
C133	○	×	×
J103	○	○	○
R04	×	○	×
R138	○	○	○

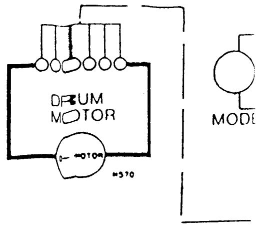
○ : Employed × : Not employed



ALL DIODES ARE

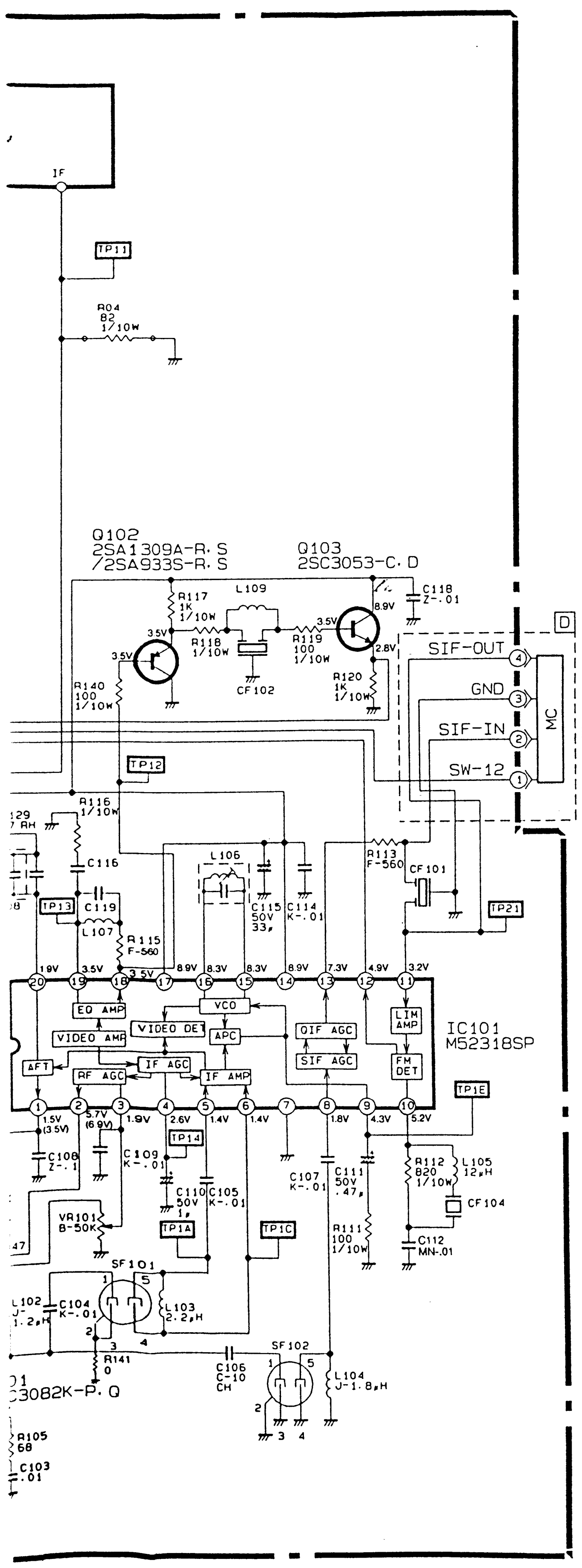
UNLESS OTHERWISE





6 7 8 9 10 11 12 13

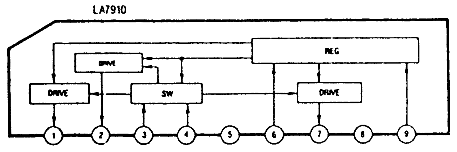
30SERIES/HS-M40SERIES



IF
TP11
R04
82
1/10W
Q102
2SA1309A-R.S
/2SA933S-R.S
Q103
2SC3053-C.D
R117
1K
1/10W
L109
C118
Z-.01
R118
1/10W
R119
100
1/10W
CF102
R120
1K
1/10W
R140
100
1/10W
SIF-OUT
GND
SIF-IN
SW-12
MC
D
TO PCB-SIF CC
TP12
R116
1/10W
C116
L106
C115
50V
33μ
C114
K-.01
R113
F-560
CF101
TP21
TP13
C119
L107
R115
F-560
EQ AMP
VIDEO AMP
VIDEO DET
VCO
APC
QIF AGC
SIF AGC
LIM AMP
FM DET
AFT
RF AGC
IF AGC
IF AMP
IC101
M52318SP
TP1E
C108
Z-.1
C109
K-.01
TP14
C110
50V
C105
K-.01
C107
K-.01
C111
50V
.47μ
R112
820
1/10W
L105
12μH
CF104
VR101
B-50K
TP1A
TP1C
R111
100
1/10W
C112
MN-.01
SF101
L102
C104
K-.01
L103
2.2μH
R141
0
C106
C-10
CH
SF102
L104
J-1.8μH
R105
68
C103
Z-.01

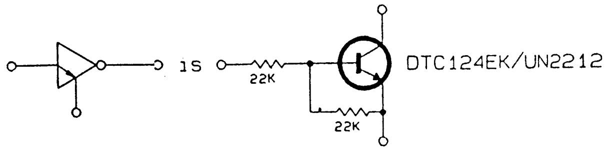
○ : Employed × : Not employed

	(Y)	(B)	(P)	(IR)	(G)	(A)	(NZ)	(SA)	(EE)
A AREA	○	×	×	×	○	×	×	×	×
B AREA	○	×	○	○	○	○	○	○	○
C AREA	×	×	×	×	×	○	○	×	×
D AREA	×	×	×	×	×	×	×	×	○
L102	1.2μ	1.2μ	1.2μ	1.2μ	1.2μ	1.2μ	2.2μ	1.2μ	1.2μH
R105	×	×	×	×	×	○	○	×	×
CF101	○	○	○	○	○	○	○	○	×
C103	×	×	×	×	×	○	○	×	×
C116	×	×	×	×	18SL	×	33SL	×	1000P
C119	18SL	15SL	18SL	15SL	39SL	15SL	12SL	15SL	18SL
L109	J-5.6μH	J-8.2μH	J-5.6μH	J-8.2μH	J-5.6μH	J-5.6μH	J-5.6μH	J-5.6μH	J-5.6μH
L107	39μ	56μ	39μ	56μ	22μ	47μ	39μ	47μ	39μ
R113	F-560	F-560	F-560	F-560	F-560	F-560	F-560	F-560	0Ω
R118	F-150	F-390	F-150	F-330	F-330	F-180	F-220	F-180	F-150
R116	×	×	×	×	0Ω	×	0Ω	×	3.9K
D103	×	×	×	×	×	×	×	○	×
D101	○	×	×	×	○	×	×	×	×
Q106	○	×	×	×	○	×	×	○	×
C133	○	×	×	×	○	×	×	○	×
J103	○	○	○	○	○	×	×	○	○
R04	×	○	×	○	○	○	○	○	×
R138	○	○	○	○	○	×	×	○	○

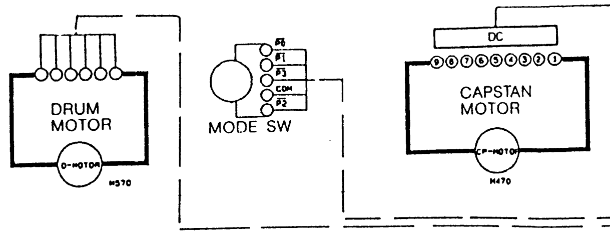


LA7910
DRIVE
DRIVE
SW
DRIVE
REG

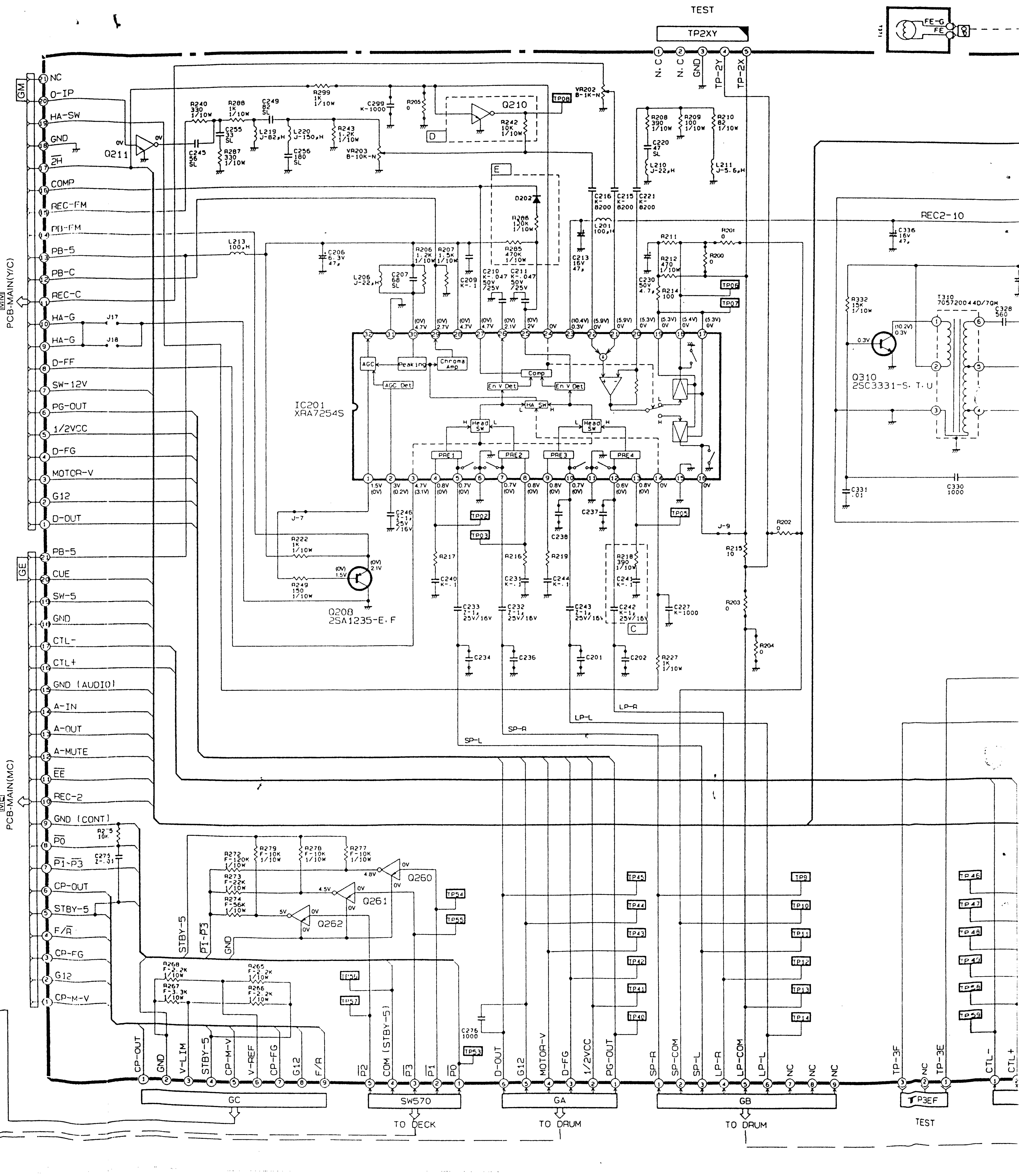
ALL DIODES ARE 1SS252/1SS131 UNLESS OTHERWISE SPECIFIED.



1S
22K
22K
DTC124EK/UN2212

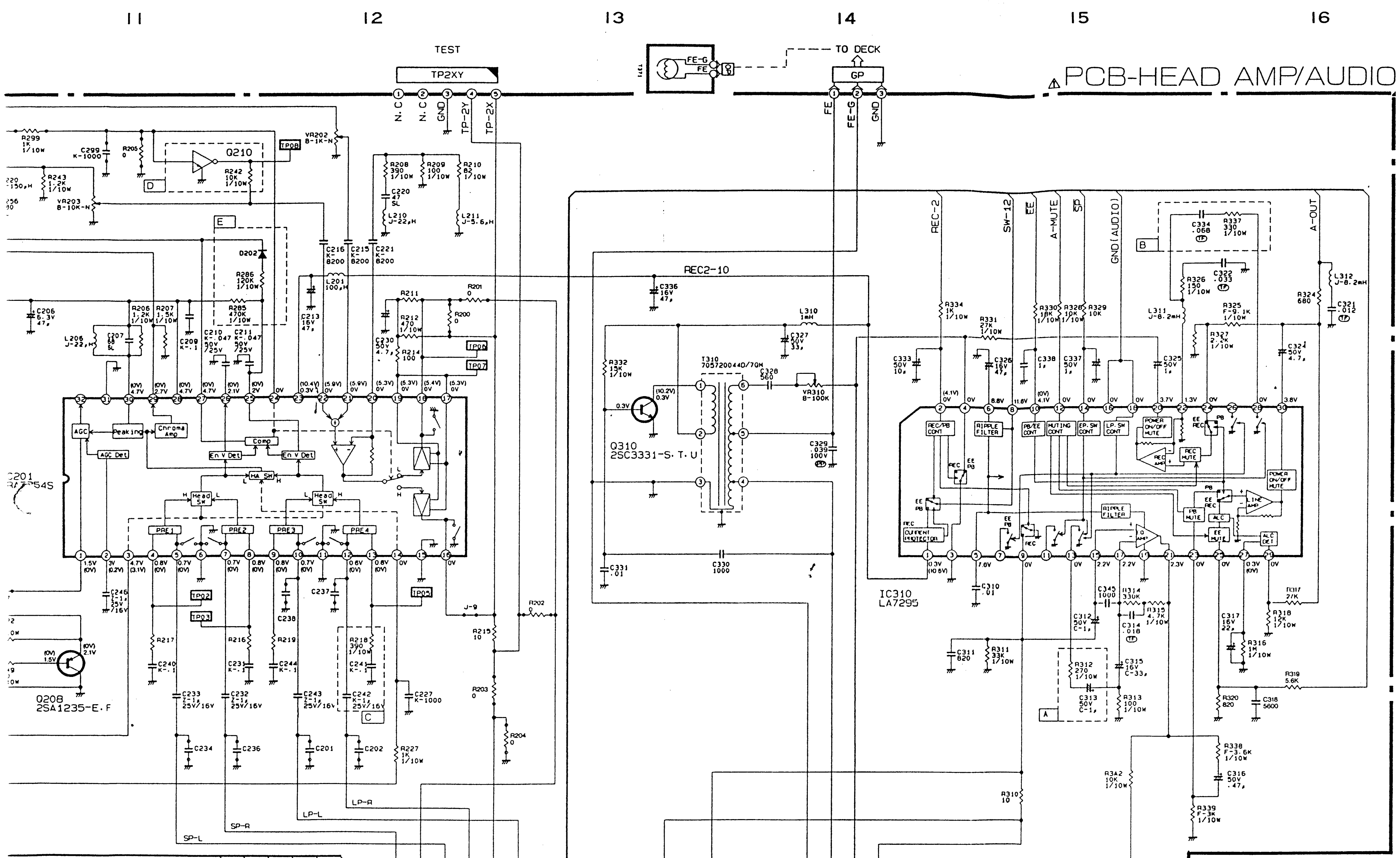


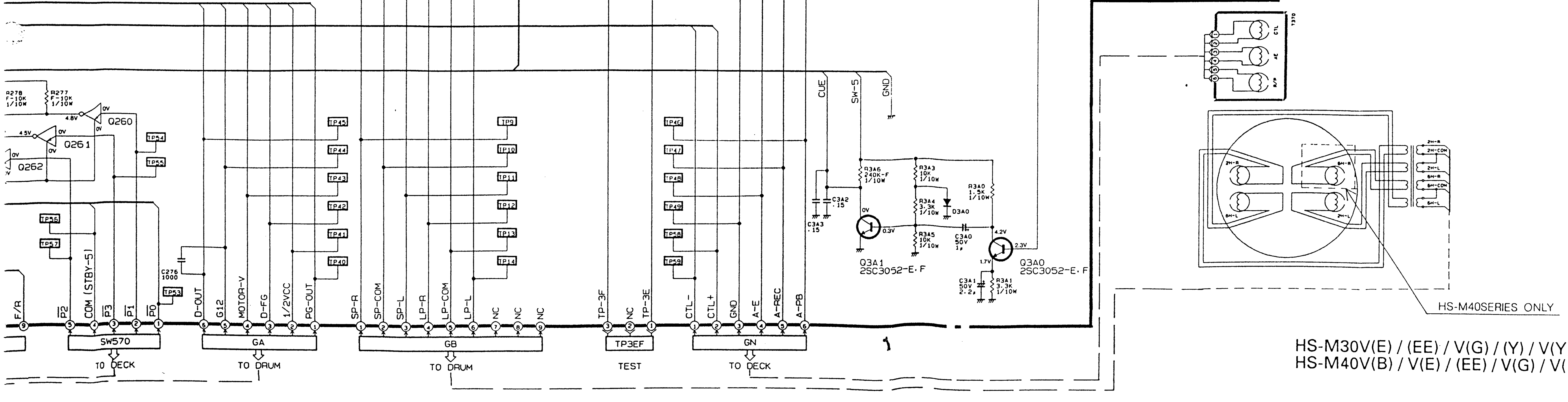
DRUM MOTOR
D-MOTOR
M570
MODE SW
DC
CAPSTAN MOTOR
CP-MOTOR
M470



TEST
TP2XY
N.C
N.C
GND
TP-2Y
TP-2X
FE-G
FE
GM
NC
O-IP
HA-SW
GND
2H
COMP
REC-FM
PB-FM
PB-5
PB-C
REC-C
HA-G
HA-G
D-FF
SW-12V
PG-OUT
1/2VCC
D-FG
MOTOR-V
G12
D-OUT
MM
PCB-MAIN(Y/C)
Q211
R240
330
1/10W
R288
1K
1/10W
C249
82
SL
L219
J-82μH
L220
J-150μH
R299
1K
1/10W
R243
1.2K
1/10W
VR203
B-10K-N
C299
K-1000
R205
0
Q210
R242
10K
1/10W
TP08
VR202
B-1K-N
D
E
D202
R286
120K
1/10W
C216
K-8200
C215
K-8200
C221
K-8200
R208
390
1/10W
R209
100
1/10W
R210
82
1/10W
C220
47
SL
L210
J-22μH
L211
J-5.6μH
L201
100μH
L213
100μH
C206
6.3V
47μ
L206
J-22μH
C207
68
SL
R206
1.2K
1/10W
R207
1.5K
1/10W
C209
K-.1
R285
470K
1/10W
C213
16V
47μ
R211
R201
0
R212
470
1/10W
R200
0
C230
50V
4.7μ
R214
100
TP06
TP07
AGC
Peaking
Chroma Amp
AGC Det
Comp
En V Det
En V Det
HA SW
Head SW
Head SW
PRE1
PRE2
PRE3
PRE4
IC201
XRA7254S
C246
25V/16V
TP02
TP03
C238
C237
TP05
J-7
R222
1K
1/10W
R249
150
1/10W
Q208
2SA1235-E.F
R217
C240
K-.1
R216
C233
K-.1
R219
C244
K-.1
R218
390
1/10W
C245
K-.1
C227
K-1000
C233
25V/16V
C232
25V/16V
C243
25V/16V
C242
25V/16V
C
C234
C236
C201
C202
R227
1K
1/10W
J-9
R202
0
R215
10
R203
0
R204
0
LP-L
LP-R
SP-L
SP-R
REC2-10
C336
16V
47μ
R332
15K
1/10W
Q310
2SC3331-S.T.U
T310
7057200440/70M
C328
560
C331
.01
C330
1000
GE
PB-5
CUE
SW-5
GND
CTL-
CTL+
GND (AUDIO)
A-IN
A-OUT
A-MUTE
EE
REC-2
GND (CONT)
P0
P1-P3
CP-OUT
STBY-5
F/R
CP-FG
G12
CP-M-V
ME
PCB-MAIN(MC)
R275
C275
R272
F-120K
R273
F-22K
R274
F-56K
R279
F-10K
R278
F-10K
R277
F-10K
Q260
Q261
Q262
STBY-5
P1-P3
GND
R268
R267
R265
R266
TP50
TP57
TP54
TP55
TP53
C276
1000
TP45
TP44
TP43
TP42
TP41
TP40
TP9
TP10
TP11
TP12
TP13
TP14
TP46
TP47
TP48
TP49
TP58
TP59
CP-OUT
GND
V-LIM
STBY-5
CP-M-V
V-REF
CP-FG
G12
F/R
GC
P2
COM (STBY-5)
P3
P1
P0
SW570
TO DECK
D-OUT
G12
MOTOR-V
D-FG
1/2VCC
PG-OUT
GA
TO DRUM
SP-R
SP-COM
SP-L
LP-R
LP-COM
LP-L
NC
NC
NC
GB
TO DRUM
TP-3F
NC
TP-3E
TP3EF
TEST
CTL-
CTL+

⚠PCB-HEAD AMP/AUDIO

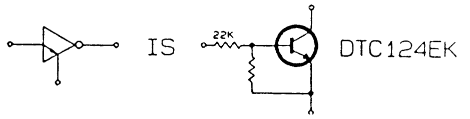

11
12
13
14
15
16
17
TEST
TP2XY
N.C
N.C
GND
TP-2Y
TP-2X
FE-G
FE
TO DECK
GP
Q210
VR202
R299
C299
R205
R243
VR203
D202
R286
R285
L201
C216
C215
C221
R208
R209
R210
C220
L210
L211
REC2-10
C336
L310
T310
7057200440/70H
C328
VR310
C329
Q310
2SC3331-S.T.U
R332
C330
C331
REC-2
SW-12
EE
A-MUTE
SP
GND(AUDIO)
A-OUT
C334
R337
R326
C322
R325
L311
R327
L312
R324
C321
IC310
LA7295
REC/PB CONT
RIPPLE FILTER
PB/EE CONT
MUTING CONT
EP. SW CONT
LP. SW CONT
POWER ON/OFF MUTE
REC AMP
REC MUTE
PB MUTE
ALC
LINE AMP
ALC DET
REC CURRENT REGULATOR
AGC
Peaking
Chroma Amp
AGC Det
En V Det
Comp
HA SW
Head SW
PRE1
PRE2
PRE3
PRE4
TP02
TP03
TP05
TP06
TP07
TP08
R217
R216
R219
R218
C240
C233
C232
C243
C242
C234
C236
C201
C202
R227
C227
R215
R203
R204
R202
J-9
R310
R338
R339
R342
C316
R312
R313
C313
C345
R314
R315
C314
C315
C317
R316
R317
R318
R319
R320
C318
Q208
2SA1235-E.F
SP-L
SP-R
LP-L
LP-R
A
B
C
D
E


R278
R277
Q260
Q261
Q262
TP54
TP55
TP56
TP57
TP53
C276
TP45
TP44
TP43
TP42
TP41
TP40
TP9
TP10
TP11
TP12
TP13
TP14
TP46
TP47
TP48
TP49
TP58
TP59
CUE
SW-5
GND
R3A6
R3A3
R3A4
R3A5
D3A0
R3A0
C3A0
C3A2
C3A3
C3A1
R3A1
Q3A1
2SC3052-E.F
Q3A0
2SC3052-E.F
F/R
P2
COM (STBY-5)
P3
P1
P0
SW570
TO DECK
D-OUT
G12
MOTOR-V
D-FG
1/2VCC
PG-OUT
GA
TO DRUM
SP-R
SP-COM
SP-L
LP-R
LP-COM
LP-L
NC
GB
TO DRUM
TP-3F
NC
TP-3E
TP3EF
TEST
CTL-
CTL+
GND
A-E
A-REC
A-PB
GN
TO DECK
T370
CTL
AE
R/P
2H-R
2H-COM
2H-L
6H-R
6H-COM
6H-L
HS-M40SERIES ONLY

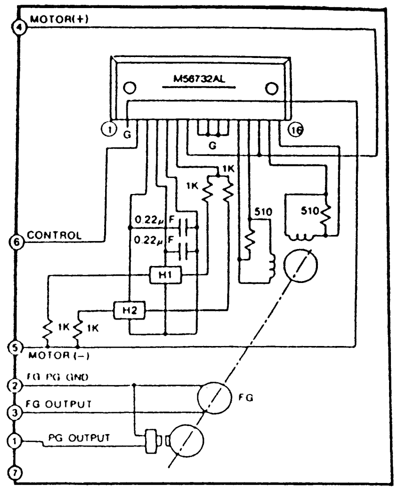
○ : Employed × : Not employed

REMARK \ ITEM	M30 SERIES	M40 SERIES
C345	(G) ONLY	(G) ONLY
R329	×	○
A AREA	×	○
B AREA	×	○
C AREA	×	○
D AREA	×	○
E AREA	×	○
C201	68 SL	56 SL
C202	×	56 SL
C234	56 SL	82 SL
C236	47 SL	82 SL
C237	8200	×
R211	×	470
C337	×	○
R217	680	1K
R216	560	1K
R219	820	390
R200	○	×
R204	○	×
J-9	×	○
R299/C299	×	○
R205	○	×
R201	×	○
R202	○	×
R203	×	○

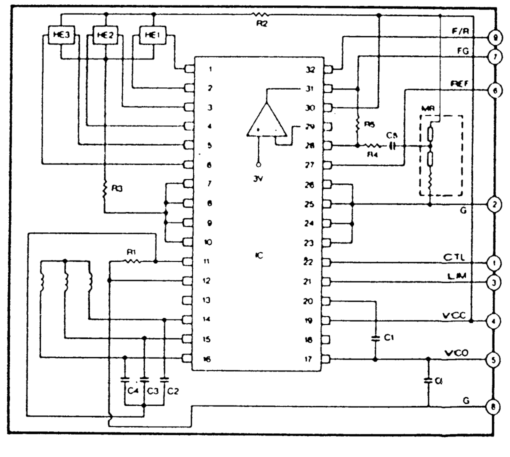
All diodes are 1SS252/1SS131
unless otherwise specified.


IS
22K
DTC124EK

DRUM MOTOR


MOTOR(+)
M56732AL
CONTROL
MOTOR(-)
FG PG GND
FG OUTPUT
PG OUTPUT
FG
H1
H2
1K
510
0.22μF

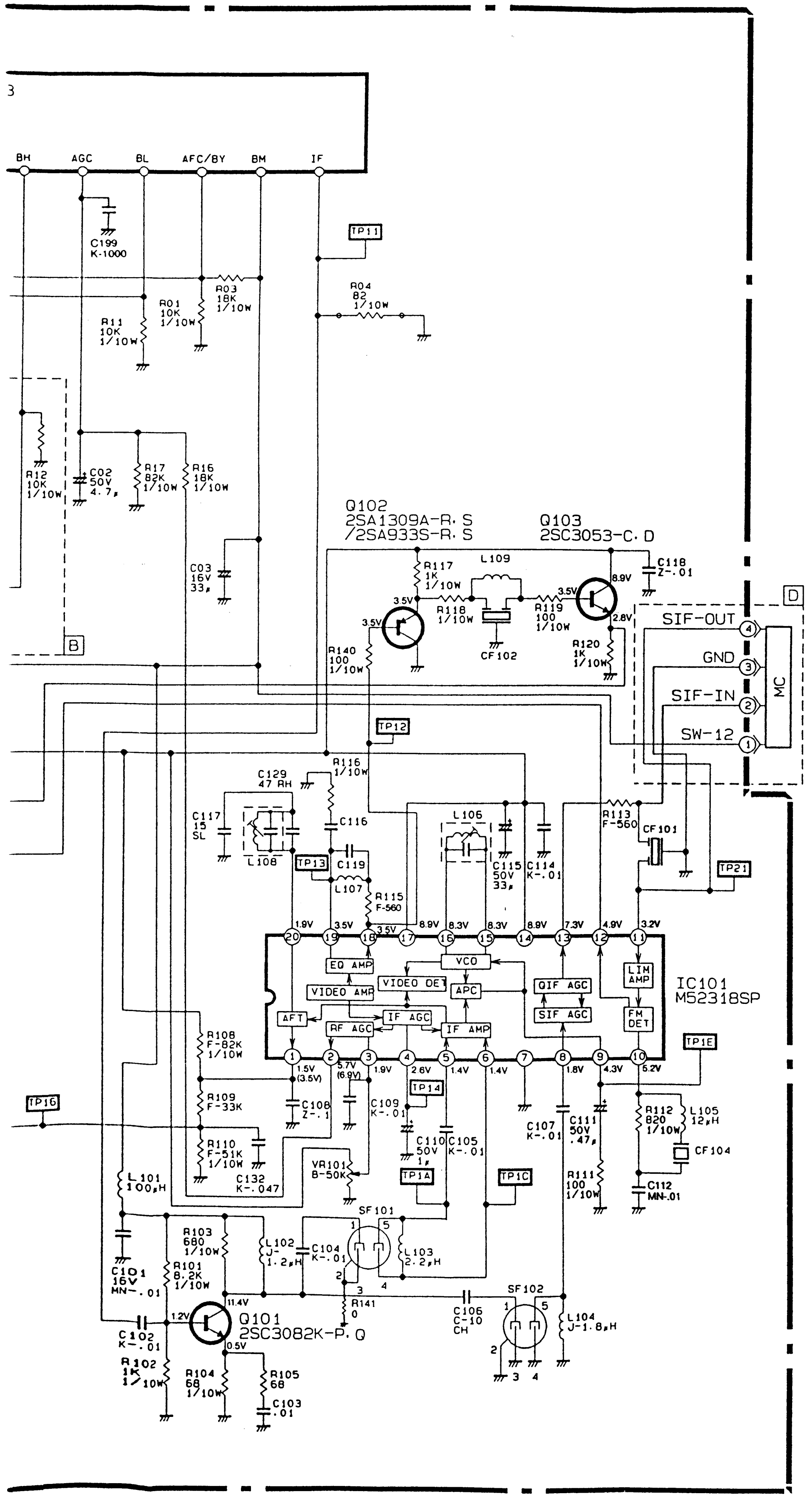
CAPSTAN MOTOR


HE3
HE2
HE1
R2
F/R
FG
REF
IC
R3
R4
R5
C5
MR
R1
C1
C2
C3
C4
CTL
LIM
VCC
VCO
G

HS-M30V(E) / (EE) / V(G) / (Y) / V(Y)
HS-M40V(B) / V(E) / (EE) / V(G) / V(IR) / V(Y)

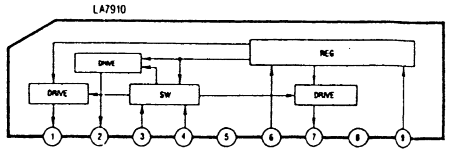
5 6 7 8 9 10 11 12

NER/VIF) HS-M30SERIES/HS-M40SERIES

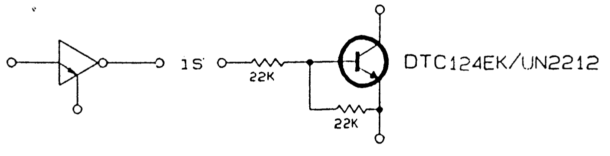

BH
AGC
BL
AFC/BY
BM
IF
TP11
C199 K-1000
R01 10K 1/10W
R03 18K 1/10W
R04 82 1/10W
R11 10K 1/10W
R12 10K 1/10W
C02 50V 4.7μ
R17 82K 1/10W
R16 18K 1/10W
C03 16V 33μ
B
Q102 2SA1309A-R, S /2SA933S-R, S
Q103 2SC3053-C, D
L109
CF102
R117 1K 1/10W
R118 1/10W
R119 100 1/10W
R120 1K 1/10W
R140 100 1/10W
C118 Z-.01
D
SIF-OUT
GND
SIF-IN
SW-12
MC
TO PCB-SIF CC
TP12
R116 1/10W
C129 47 RH
C117 15 SL
L108
C116
TP13
C119
L107
R115 F-560
L106
C115 50V 33μ
C114 K-.01
R113 F-560
CF101
TP21
EQ AMP
VIDEO AMP
VIDEO DET
VCO
APC
QIF AGC
SIF AGC
LIM AMP
FM DET
AFT
RF AGC
IF AGC
IF AMP
IC101 M52318SP
TP1E
TP16
R108 F-82K 1/10W
R109 F-33K
R110 F-51K 1/10W
C132 K-.047
C108 Z-.1
C109 K-.01
TP14
VR101 B-50K
TP1A
C110 50V 1μ
C105 K-.01
TP1C
C107 K-.01
C111 50V .47μ
R111 100 1/10W
R112 820 1/10W
L105 12μH
CF104
C112 MN-.01
L101 100μH
C101 16V MN-.01
R103 680 1/10W
R101 8.2K 1/10W
L102 J-1.2μH
C104 K-.01
SF101
L103 2.2μH
R141 0
C106 C-10 CH
SF102
L104 J-1.8μH
C102 K-.01
R102 1K 1/10W
Q101 2SC3082K-P, Q
R104 68 1/10W
R105 68
C103 -.01

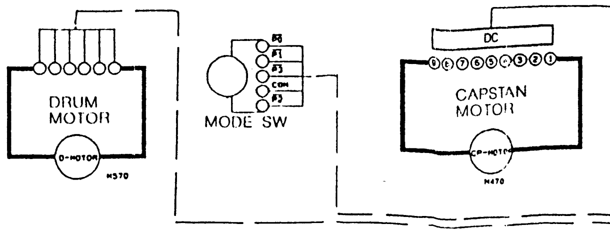
○ : Employed × : Not employed

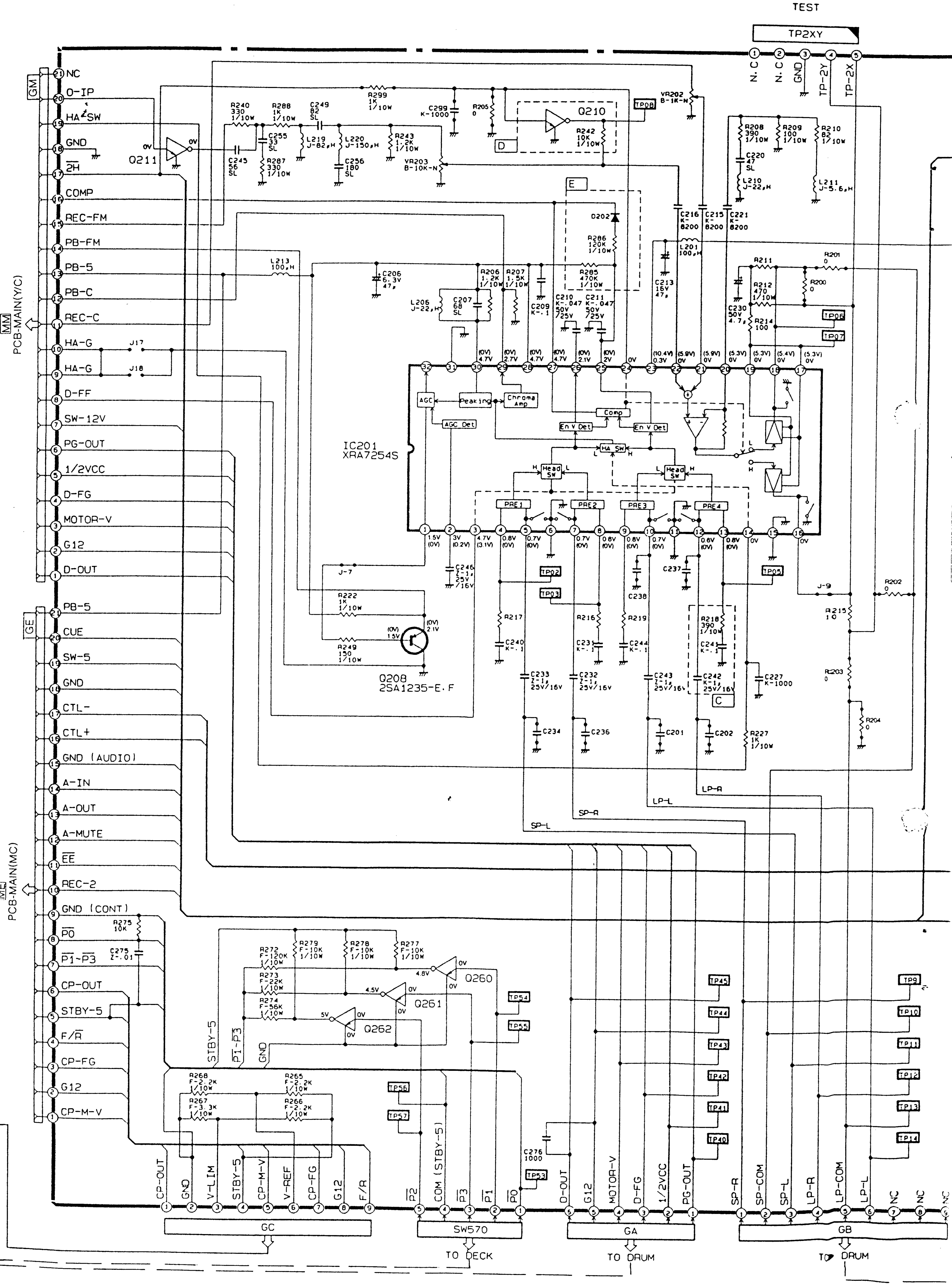
	(Y)	(B)	(P)	(IR)	(G)	(A)	(NZ)	(SA)	(EE)
A AREA	○	×	×	×	○	×	×	×	×
B AREA	○	×	○	○	○	○	○	○	○
C AREA	×	×	×	×	×	○	○	×	×
D AREA	×	×	×	×	×	×	×	×	○
L102	1.2μ	1.2μ	1.2μ	1.2μ	1.2μ	1.2μ	2.2μ	1.2μ	1.2μH
R105	×	×	×	×	×	○	○	×	×
CF101	○	○	○	○	○	○	○	○	×
C103	×	×	×	×	×	○	○	×	×
C116	×	×	×	×	18SL	×	33SL	×	1000P
C119	18SL	15SL	18SL	15SL	39SL	15SL	12SL	15SL	18SL
L109	J-5.6μH	J-8.2μH	J-5.6μH	J-8.2μH	J-5.6μH	J-5.6μH	J-5.6μH	J-5.6μH	J-5.6μH
L107	39μ	56μ	39μ	56μ	22μ	47μ	39μ	47μ	39μ
R113	F-560	F-560	F-560	F-560	F-560	F-560	F-560	F-560	0Ω
R118	F-150	F-390	F-150	F-330	F-330	F-180	F-220	F-180	F-150
R116	×	×	×	×	0Ω	×	0Ω	×	3.9K
D103	×	×	×	×	×	×	×	○	×
D101	○	×	×	×	○	×	×	×	×
Q106	○	×	×	×	○	×	×	○	×
C133	○	×	×	×	○	×	×	○	×
J103	○	○	○	○	○	×	×	○	○
R04	×	○	×	○	○	○	○	○	×
R138	○	○	○	○	○	×	×	○	○

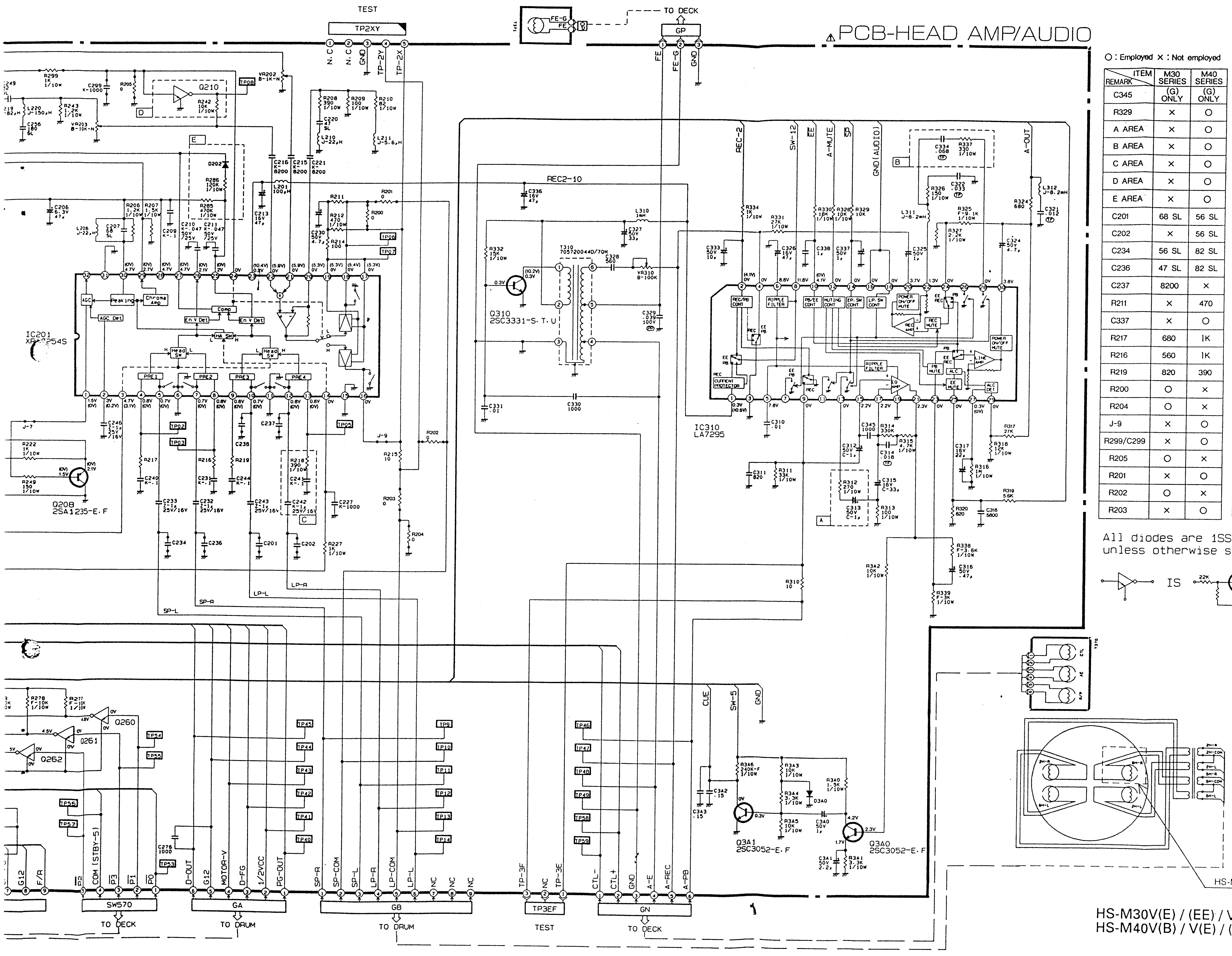

LA7910
DRIVE
SW
REC
DRIVE
DRIVE

ALL DIODES ARE 1SS252/1SS131 UNLESS OTHERWISE SPECIFIED.


1S
22K
22K
DTC124EK/UN2212


DRUM MOTOR
D-MOTOR
M570
MODE SW
DC
CAPSTAN MOTOR
CP-MOTOR
M470


TEST
TP2XY
N.C
N.C
GND
TP-2Y
TP-2X
GM
NC
D-IP
HA-SW
GND
2H
COMP
REC-FM
PB-FM
PB-5
PB-C
REC-C
HA-G
HA-G
D-FF
SW-12V
PG-OUT
1/2VCC
D-FG
MOTOR-V
G12
D-OUT
MM
PCB-MAIN(Y/C)
GE
PB-5
CUE
SW-5
GND
CTL-
CTL+
GND (AUDIO)
A-IN
A-OUT
A-MUTE
EE
REC-2
GND (CONT)
P0
P1~P3
CP-OUT
STBY-5
F/R
CP-FG
G12
CP-M-V
ME
PCB-MAIN(MC)
Q211
Q210
TP08
VR202 B-1K-N
VR203 B-10K-N
D
E
D202
IC201 XRA7254S
AGC
AGC Det
Peaking
Chroma Amp
Comp
Env Det
Env Det
HA SW
Head Sw
Head Sw
PRE1
PRE2
PRE3
PRE4
Q208 2SA1235-E, F
TP02
TP03
TP05
TP06
TP07
C
LP-R
LP-L
SP-R
SP-L
Q260
Q261
Q262
TP54
TP55
TP56
TP57
TP53
TP45
TP44
TP43
TP42
TP41
TP40
TP9
TP10
TP11
TP12
TP13
TP14
CP-OUT
GND
V-LIM
STBY-5
CP-M-V
V-REF
CP-FG
G12
F/R
GC
P2
COM (STBY-5)
P3
P1
P0
SW570
TO DECK
D-OUT
G12
MOTOR-V
D-FG
1/2VCC
PG-OUT
GA
TO DRUM
SP-R
SP-COM
SP-L
LP-R
LP-COM
LP-L
NC
NC
GB
TO DRUM

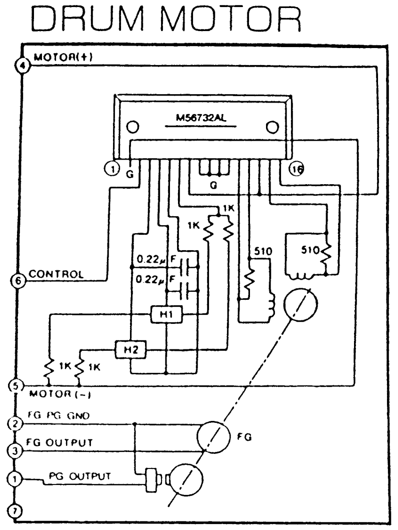

11
12
13
14
15
16
17
TEST
TP2XY
N.C
N.C
GND
TP-2Y
TP-2X
TO DECK
FE-G
FE
GP
FE
FE-G
GND
⚠PCB-HEAD AMP/AUDIO
Q210
TP08
VR202 B-1K-N
VR203 B-10K-N
D202
IC201 XRA7254S
AGC
AGC Det
Peaking
Chroma Amp
Comp
En V Det
HA SW
Head SW
PRE1
PRE2
PRE3
PRE4
TP02
TP03
TP05
TP06
TP07
Q208 2SA1235-E.F
REC2-10
T310 7057200440/70M
Q310 2SC3331-S.T.U
VR310 B-100K
REC-2
SW-12
EE
A-MUTE
SP
GND(AUDIO)
A-OUT
REC/PB CONT
RIPPLE FILTER
PB/EE CONT
MUTING CONT
EP.SW CONT
LP.SW CONT
POWER ON/OFF MUTE
REC AMP
REC MUTE
EQ AMP
ALC
ALC DET
LINE AMP
CURRENT PROTECTOR
IC310 LA7295
J-7
J-9
SP-L
SP-R
LP-L
LP-R
CUE
SW-5
GND
Q3A1 2SC3052-E.F
Q3A0 2SC3052-E.F
D3A0
Q260
Q261
Q262
TP54
TP55
TP56
TP57
TP53
TP45
TP44
TP43
TP42
TP41
TP40
TP9
TP10
TP11
TP12
TP13
TP14
TP46
TP47
TP48
TP49
TP58
TP59
G12
F/R
P2
COM (STBY-5)
P3
P1
P0
SW570
TO DECK
D-OUT
G12
MOTOR-V
D-FG
1/2VCC
PG-OUT
GA
TO DRUM
SP-R
SP-COM
SP-L
LP-R
LP-COM
LP-L
NC
NC
NC
GB
TO DRUM
TP-3F
NC
TP-3E
TP3EF
TEST
CTL-
CTL+
GND
A-E
A-REC
A-PB
GN
TO DECK
T370
CTL
AE
HS-M40SERIES ONLY
IS
DTC124EK

○ : Employed × : Not employed

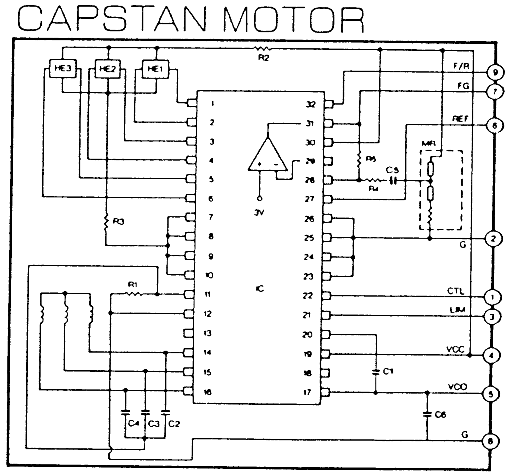
REMARK / ITEM	M30 SERIES	M40 SERIES
C345	(G) ONLY	(G) ONLY
R329	×	○
A AREA	×	○
B AREA	×	○
C AREA	×	○
D AREA	×	○
E AREA	×	○
C201	68 SL	56 SL
C202	×	56 SL
C234	56 SL	82 SL
C236	47 SL	82 SL
C237	8200	×
R211	×	470
C337	×	○
R217	680	1K
R216	560	1K
R219	820	390
R200	○	×
R204	○	×
J-9	×	○
R299/C299	×	○
R205	○	×
R201	×	○
R202	○	×
R203	×	○

All diodes are 1SS252/1SS131
unless otherwise specified.

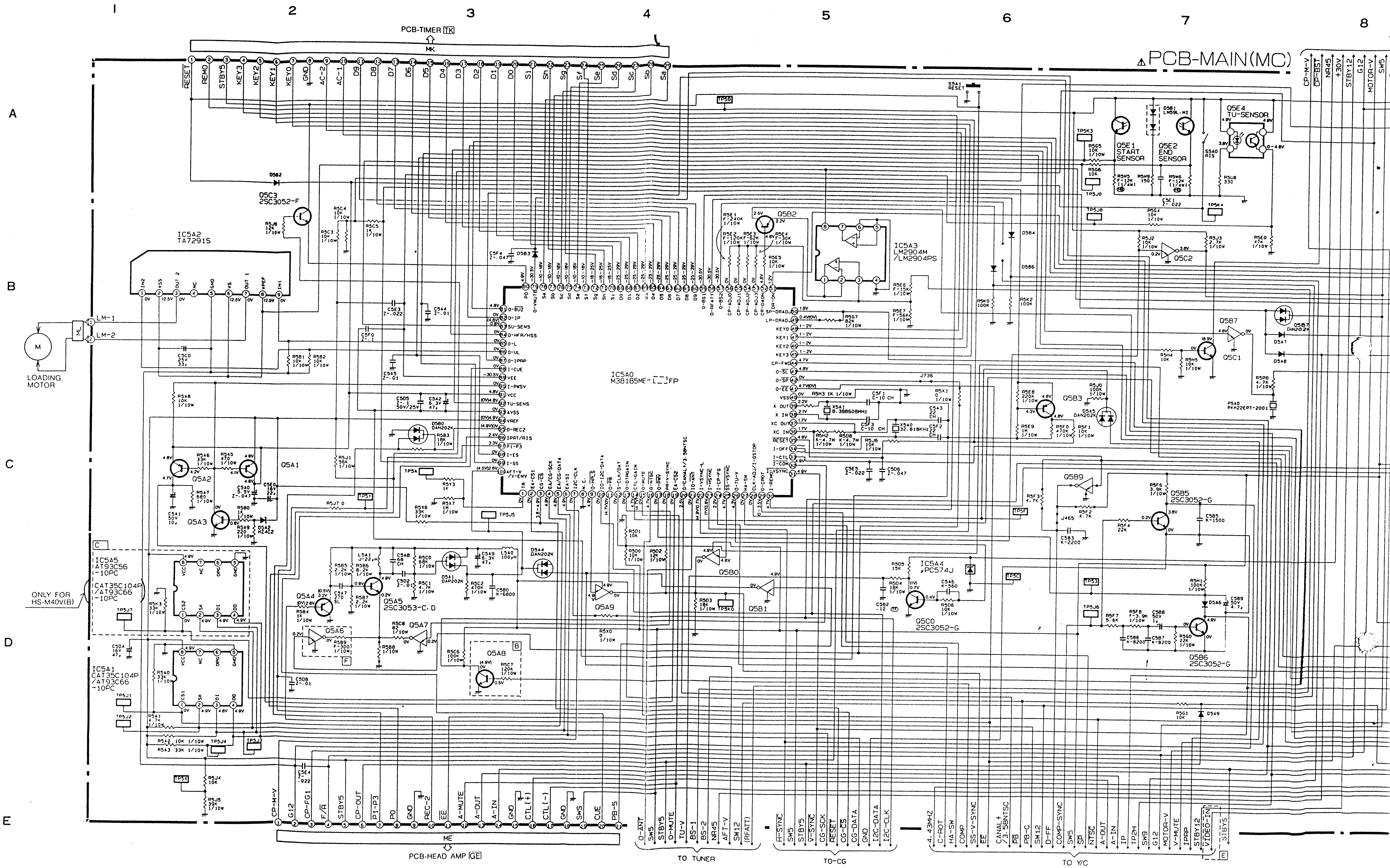
DRUM MOTOR


MOTOR(+)
M56732AL
CONTROL
MOTOR(-)
FG PG GND
FG OUTPUT
PG OUTPUT
FG

CAPSTAN MOTOR


HE3
HE2
HE1
F/R
FG
REF
CTL
LIM
VCC
VCO
G
IC

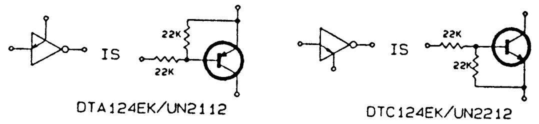
HS-M30V(E) / (EE) / V(G) / (Y) / V(Y)
HS-M40V(B) / V(E) / (EE) / V(G) / V(IR) / V(Y)


1
2
3
4
5
6
7
8
A
B
C
D
E
PCB-TIMER TK
MK
⚠PCB-MAIN(MC)
RESET
REMO
STBY5
KEY3
KEY2
KEY1
KEY0
GND
AC-2
AC-1
D9
D8
D7
D6
D5
D4
D3
D2
D1
D0
Si
Sh
Sg
Sf
Se
Sd
Sc
Sb
Sa
CP-M-V
CP-BST
NR45
+30V
STBY12
G12
MOTOR-V
SW5
IC5A2 TA7291S
IC5A0 M38185ME-[ ]FP
IC5A3 LM2904M /LM2904PS
IC5A4 μPC574J
IC5A5 AT93C56 -10PC
CAT35C104P /AT93C66 -10PC
IC5A1 CAT35C104P /AT93C66 -10PC
ONLY FOR HS-M40V(B)
LOADING MOTOR
M
LM-1
LM-2
Q5C3 2SC3052-F
Q5A1
Q5A2
Q5A3
Q5A4
Q5A5 2SC3053-C. D
Q5A6
Q5A7
Q5A8
Q5A9
Q5B0
Q5B1
Q5B2
Q5B3
Q5B5 2SC3052-G
Q5B6 2SC3052-G
Q5B7
Q5B9
Q5C0 2SC3052-G
Q5C1
Q5C2
Q5E1 START SENSOR
Q5E2 END SENSOR
Q5E4 TU-SENSOR
D5B1 LN59L-MI
S5A1 RESET
S5A0 RIS
P5A0 PKM22EPT-2001
X5A1 8.388608MHz
X5A0 32.818KHz
CP-M-V
G12
CP-FG1
F/R
STBY5
CP-OUT
P1-P3
PO
GND
REC-2
EE
A-MUTE
A-OUT
A-IN
CTL(+)
CTL(-)
GND
SWS
CUE
PB-5
ME
PCB-HEAD AMP GE
O-ANT
SW5
STBY5
O-MUTE
TU-V
BS-1
BS-2
NR45
AFT-V
SW12
(RFATT)
TO TUNER
H-SYNC
SW5
STBY5
V-SYNC
CG-SCK
RESET
CG-CS
CG-DATA
GND
I2C-DATA
I2C-CLK
TO-CG
4.43MHZ
C-ROT
HA-SW
COMP
SS-V-SYNC
EE
CANAL+ /3.58NTSC
PB
PB-C
SW12
D-FF
COMP-SYNC
SW5
SP
NTSC
A-OUT
A-IN
IP
TP2H
SW9
G12
MOTOR-V
V-MUTE
IPRP
STBY12
VIDEO-IN
STBY5
TO Y/C

○ : Employed × : Not employed

MODELS \ SYMBOL NO	IC5A0	B AREA	C AREA	R5F3	Q5B9	R5F2	J465	R5G7	D AREA	E AREA	F AREA	R5BB	R5X0	R5X1	J736
HS-M40V(Y)	062	○	○	○	×	×	×	○	×	×	○	100	×	○	○
HS-M40V(B)	066	○	○	○	×	×	×	○	○	○	○	100	○	○	○
HS-M40V(E).V(G)	053	○	○	○	×	×	×	○	×	×	○	100	○	○	○
HS-M40V(IR)	066	○	×	○	×	×	×	○	×	×	○	100	×	○	○
HS-M40(EE)	053	○	×	○	×	×	×	○	×	×	○	100	○	○	○

All diodes are 1SS252/1SS131 unless otherwise specified.
All NPN transistors are 2SC3052-E.F unless otherwise specified.
All PNP transistors are 2SA1235-E.F unless otherwise specified.


IS
22K
22K
IS
22K
22K

DTA124EK/UN2112

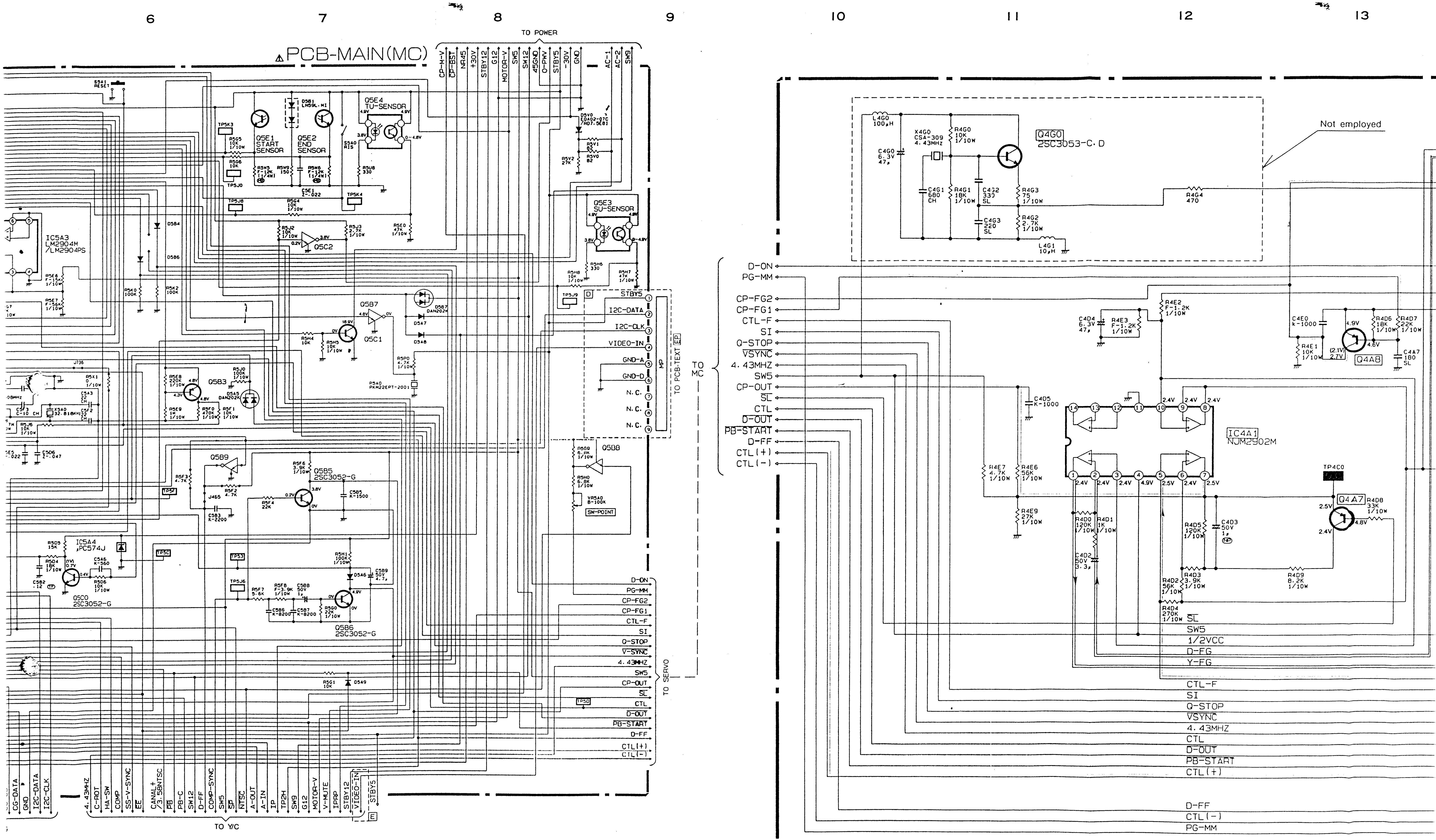
DTC124EK/UN2212

○ : Employed × : Not employed

MODELS \ SYMBOL NO	IC5A0	B
HS-M30(Y)	062	
HS-M30V(E).V(G)	053	
HS-M30V(Y)	062	
HS-M30(EE)	053	

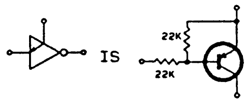
HS-M30V(E) / (EE) / V(G) / (Y) / V(Y)
HS-M40V(B) / V(E) / (EE) / V(G) / V(IR) / V(Y)

⑥

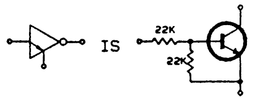

6
7
8
9
10
11
12
13
⚠PCB-MAIN(MC)
TO POWER
CP-M-V
CP-BST
NR45
+30V
STBY12
G12
MOTOR-V
SW5
SW12
45GND
O-PWV
STBY5
-30V
GND
AC-1
AC-2
SW9
S5A1 RESET
Q5E1 START SENSOR
D5B1 LN59L·MI
Q5E2 END SENSOR
Q5E4 TU-SENSOR
S5A0 RIS
Q5E3 SU-SENSOR
IC5A3 LM2904M /LM2904PS
Q5C2
Q5B7
Q5C1
D5B7 DAN202K
P5A0 PKM22EPT-2001
Q5B3
D5A5 DAN202K
Q5B9
Q5B5 2SC3052-G
Q5B8
VR5A0 B-100K
SW-POINT
IC5A4 µPC574J
Q5C0 2SC3052-G
Q5B6 2SC3052-G
STBY5
I2C-DATA
I2C-CLK
VIDEO-IN
GND-A
GND-D
N.C.
MP
TO PCB-TEXT EP
TO MC
D-ON
PG-MM
CP-FG2
CP-FG1
CTL-F
SI
Q-STOP
V-SYNC
4.43MHZ
SW5
CP-OUT
SL
CTL
D-OUT
PB-START
D-FF
CTL(+)
CTL(-)
TO SERVO
CG-DATA
GND
I2C-DATA
I2C-CLK
4.43MHZ
C-ROT
HA-SW
COMP
SS-V-SYNC
EE
CANAL+ /3.58NTSC
PB
PB-C
SW12
D-FF
COMP-SYNC
SW5
SP
NTSC
A-OUT
A-IN
IP
TP2H
SW9
G12
MOTOR-V
V-MUTE
IPRP
STBY12
VIDEO-IN
STBY5
TO Y/C
Not employed
Q4G0 2SC3053-C·D
X4G0 CSA-309 4.43MHZ
IC4A1 NJM2902M
Q4A7
Q4A8
TP4C0
SW5
1/2VCC
D-FG
Y-FG

R5X1	J736
○	○
○	○
○	○
○	○
○	○

All diodes are 1SS252/1SS131 unless otherwise specified.
All NPN transistors are 2SC3052-E·F unless otherwise specified.
All PNP transistors are 2SA1235-E·F unless otherwise specified.



DTA124EK/UN2112



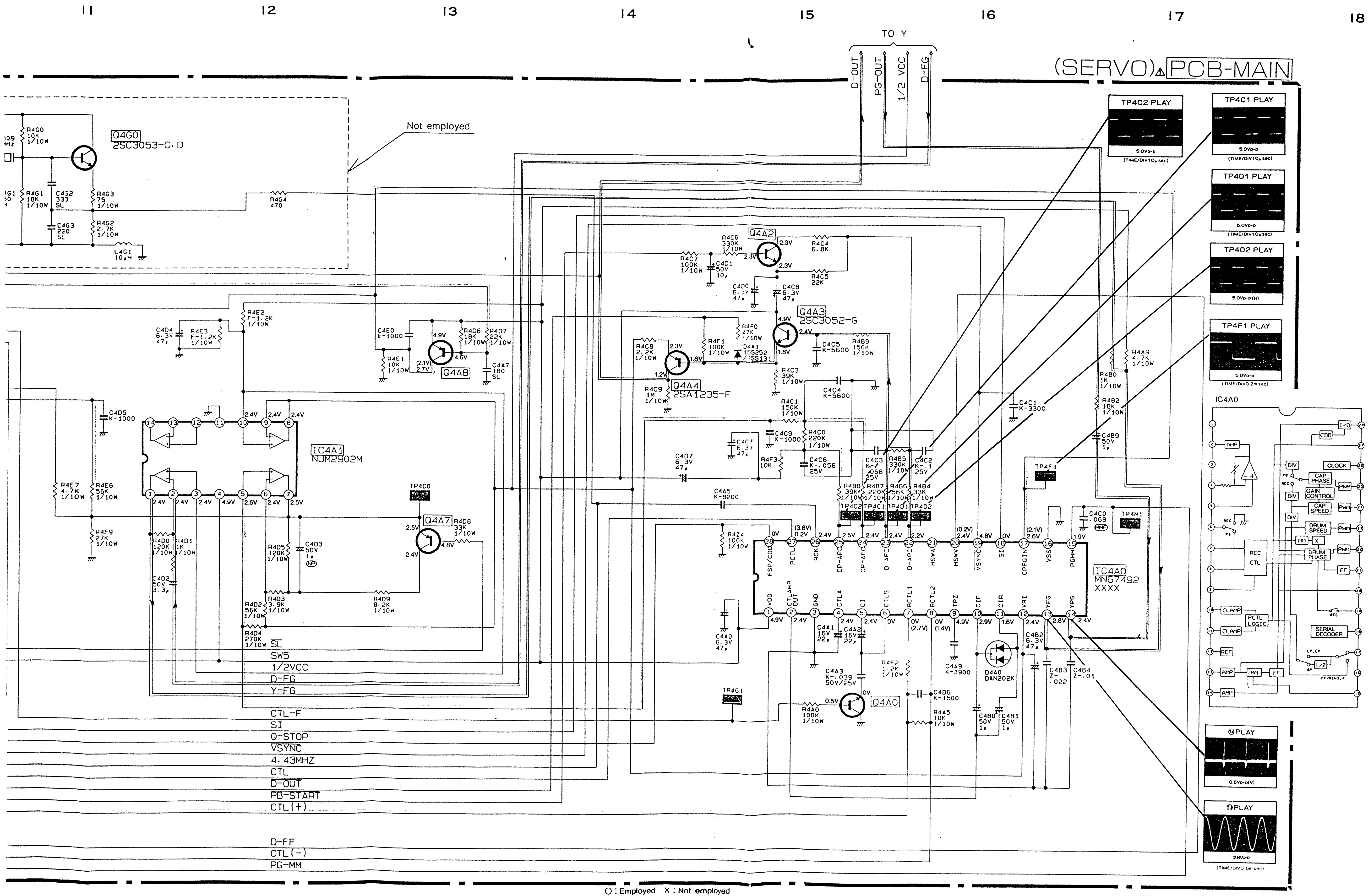
DTC124EK/UN2212

○ : Employed × : Not employed

MODELS \ SYMBOL NO	IC5A0	B AREA	C AREA	R5F3	Q5B9	R5F2	J465	R5G7	D AREA	E AREA	F AREA	R5B8	R5X0	R5X1	J736
HS-M30(Y)	062	×	×	×	○	○	○	×	×	×	×	120	×	×	×
HS-M30V(E),V(G)	053	×	○	×	○	○	○	×	×	×	×	120	○	×	×
HS-M30V(Y)	062	×	○	×	○	○	○	×	×	×	×	120	×	×	×
HS-M30(EE)	053	×	×	×	○	○	○	×	×	×	×	120	○	×	×

All NPN transistors are 2SC3052-E·F unless otherwise
All PNP transistors are 2SA1235-E·F unless otherwise

(SERVO) PCB-MAIN



11
12
13
14
15
16
17
18
TO Y
D-OUT
PG-OUT
1/2 VCC
D-FG
Not employed
Q4G0
2SC3053-C.D
R4G0 10K 1/10W
R4G1 18K 1/10W
C4G2 330 SL
R4G3 75 1/10W
C4G3 220 SL
R4G2 2.7K 1/10W
R4G4 470
L4G1 10μH
Q4A2
R4C6 330K 1/10W
R4C7 100K 1/10W
C4D1 50V 10μ
R4C4 6.8K
R4C5 22K
C4D0 6.3V 47μ
C4C8 6.3V 47μ
Q4A3
2SC3052-G
R4F0 47K 1/10W
D4A1 1SS252 /1SS131
R4F1 100K 1/10W
R4C8 2.2K 1/10W
Q4A4
2SA1235-F
R4C9 1M 1/10W
C4C5 K-5600
R4B9 150K 1/10W
R4C3 39K 1/10W
C4C4 K-5600
R4C1 150K 1/10W
C4E0 K-1000
R4E1 10K 1/10W
R4D6 18K 1/10W
R4D7 22K 1/10W
C4A7 180 SL
Q4A8
C4D4 6.3V 47μ
R4E3 F-1.2K 1/10W
R4E2 F-1.2K 1/10W
C4D5 K-1000
IC4A1
NJM2902M
R4E7 4.7K 1/10W
R4E6 56K 1/10W
R4E9 27K 1/10W
R4D0 120K 1/10W
R4D1 1K 1/10W
C4D2 50V 3.3μ
R4D2 56K 1/10W
R4D3 3.9K 1/10W
R4D4 270K 1/10W
R4D5 120K 1/10W
C4D3 50V 1μ
R4D9 8.2K 1/10W
TP4C0
Q4A7
R4D8 33K 1/10W
C4D7 6.3V 47μ
C4C7 6.3V 47μ
C4C9 K-1000
R4C0 220K 1/10W
R4F3 10K
C4C6 K-.056 25V
C4A5 K-8200
C4C3 K-.068 25V
R4B5 330K 1/10W
C4C2 K-.1 25V
R4B8 39K 1/10W
R4B7 220K 1/10W
R4B6 56K 1/10W
R4B4 33K 1/10W
TP4C2
TP4C1
TP4D1
TP4D2
TP4F1
TP4M1
C4C1 K-3300
R4A9 4.7K 1/10W
R4B0 1K 1/10W
R4B2 18K 1/10W
C4B9 50V 1μ
C4C0 .068
R4Z4 100K 1/10W
IC4A0
MN67492 XXXX
FSP/CDO
PCTL
RCK
CP-APC
CP-AFC
D-AFC
D-APC
HSW
MSW
VSYNC
SI
CPFGIN
VSS
PGMM
VDD
CTLAMP OUT
GND
CTLA
CI
CTLS
RCTL1
RCTL2
TPZ
CIF
CIR
VRI
YFG
YPG
C4A0 6.3V 47μ
C4A1 16V 22μ
C4A2 16V 22μ
C4A3 K-.039 50V/25V
R4F2 1.2K 1/10W
C4A9 K-3900
D4A0 DAN202K
C4B2 6.3V 47μ
C4B3 Z-.022
C4B4 Z-.01
TP4G1
Q4A0
R4A0 100K 1/10W
C4B6 K-1500
R4A5 10K 1/10W
C4B0 50V 1μ
C4B1 50V 1μ
SL
SW5
1/2VCC
D-FG
Y-FG
CTL-F
SI
Q-STOP
VSYNC
4.43MHZ
CTL
D-OUT
PB-START
CTL(+)
D-FF
CTL(-)
PG-MM
TP4C2 PLAY
5.0Vp-p
(TIME/DIV10μsec)
TP4C1 PLAY
5.0Vp-p
(TIME/DIV10μsec)
TP4D1 PLAY
5.0Vp-p
(TIME/DIV10μsec)
TP4D2 PLAY
5.0Vp-p(H)
TP4F1 PLAY
5.0Vp-p
(TIME/DIV0 2msec)
⑬PLAY
0.6Vp-p(V)
⑩PLAY
2.8Vp-p
(TIME/DIV0 5msec)
IC4A0
AMP
DIV
CAP PHASE
GAIN CONTROL
CAP SPEED
DRUM SPEED
DRUM PHASE
REC CTL
CLOCK
CDD
I/O
PWM
FF
CLAMP
PCTL LOGIC
REF
SERIAL DECODER
1/2

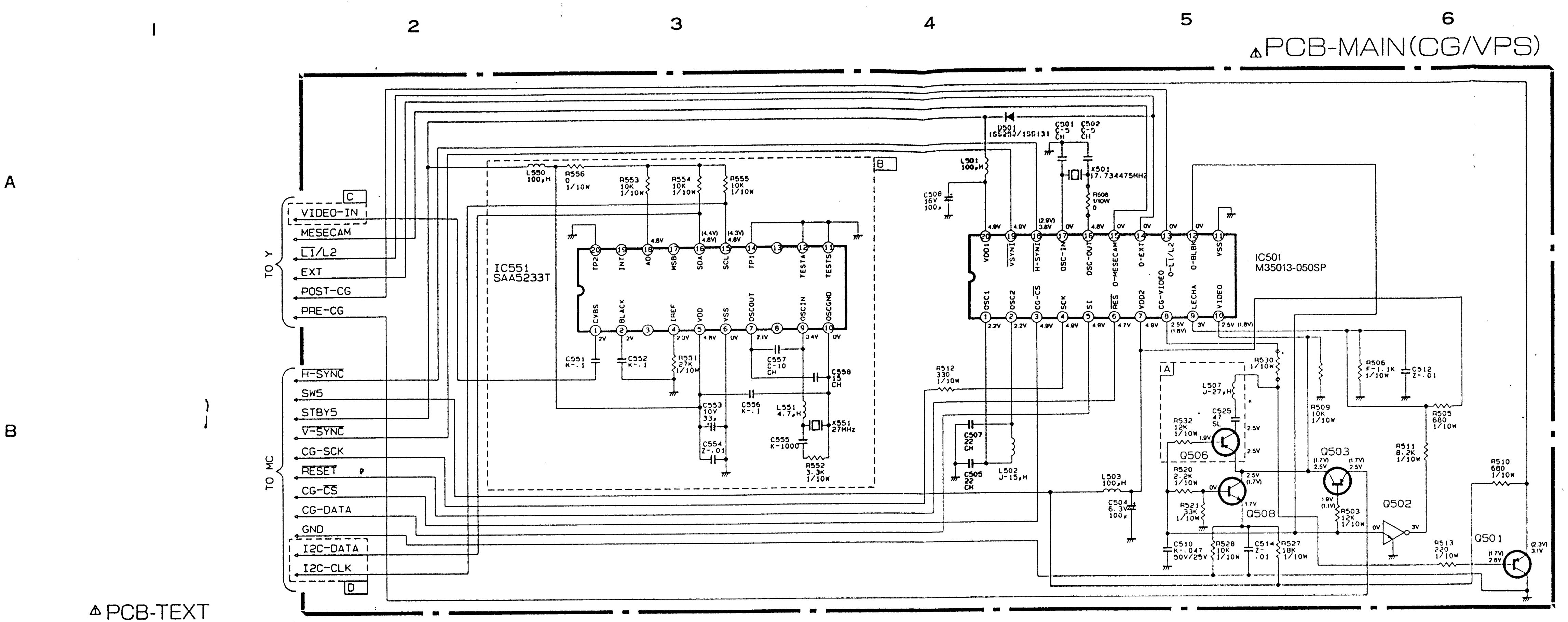
All NPN transistors are 2SC3052-E.F unless otherwise specified.
All PNP transistors are 2SA1235-E.F unless otherwise specified.

○ : Employed × : Not employed

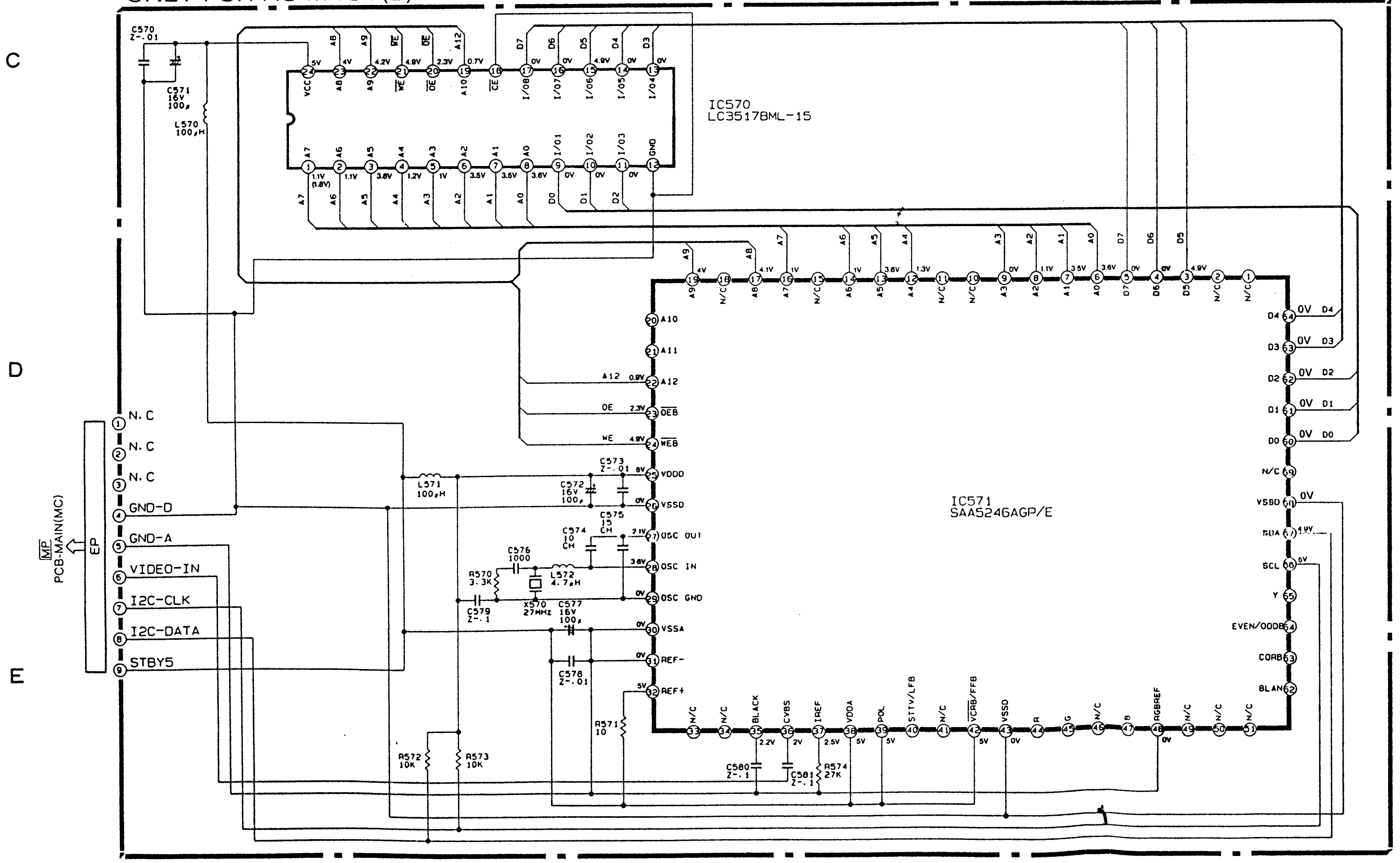
MODELS / SYMBOL NO	IC4A0
HS-M40V(Y),V(B),V(E),V(IR),V(G)	MSX5
HS-M40(EE)	MSX5
HS-M30(Y),(EE)	MSU5
HS-M30V(Y),V(E),V(G)	MSU5

——— Drum Servo System

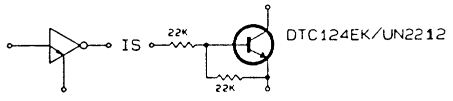
- - - - Capstan Servo System


⚠PCB-MAIN(CG/VPS)
1
2
3
4
5
6
7
A
B
C
VIDEO-IN
MESECAM
L1/L2
EXT
POST-CG
PRE-CG
TO Y
H-SYNC
SW5
STBY5
V-SYNC
CG-SCK
RESET
CG-CS
CG-DATA
GND
I2C-DATA
I2C-CLK
TO MC
D
B
IC551
SAA5233T
TP2
INT
AD
MSB
SDA
SCL
TP1
TESTA
TESTS
CVBS
BLACK
IREF
VDD
VSS
OSCOUT
OSCIN
OSCGND
L550 100μH
R556 0 1/10W
R553 10K 1/10W
R554 10K 1/10W
R555 10K 1/10W
C551 K-.1
C552 K-.1
R551 27K 1/10W
C553 10V 33μ
C554 Z-.01
C556 K-.1
C557 C-10 CH
C558 15 CH
L551 4.7μH
X551 27MHz
C555 K-1000
R552 3.3K 1/10W
D501 1SS253/1SS131
C501 C-5 CH
C502 C-5 CH
X501 17.734475MHz
R508 1/10W 0
L501 100μH
C508 16V 100μ
IC501
M35013-050SP
VDD1
VSYNI
H-SYNI
OSC-IN
OSC-OUT
O-MESECAM
O-EXT
O-L1/L2
O-BLK
VSS
OSC1
OSC2
CG-CS
SCK
SI
RES
VDD2
CG-VIDEO
LECHA
VIDEO
R512 330 1/10W
C507 22 CH
C505 22 CH
L502 J-15μH
L503 100μH
C504 6.3V 100μ
A
R530 1/10W
L507 J-27μH
C525 47 SL
R532 12K 1/10W
Q506
R520 2.2K 1/10W
R521 33K 1/10W
Q508
Q503
R503 12K 1/10W
Q502
R509 10K 1/10W
R506 F-1.1K 1/10W
C512 Z-.01
R505 680 1/10W
R511 8.2K 1/10W
R510 680 1/10W
R513 220 1/10W
Q501
C510 K-.047 50V/25V
R528 10K 1/10W
C514 Z-.01
R527 18K 1/10W

⚠PCB-TEXT
ONLY FOR HS-M40V(B)

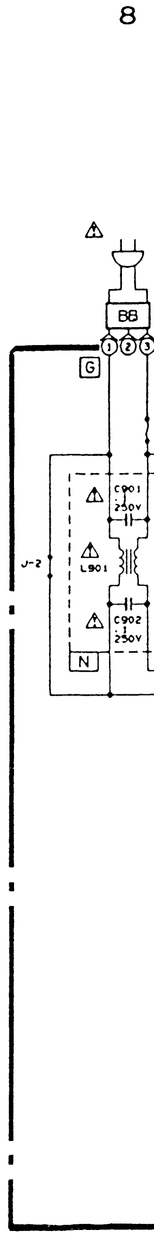

C
D
E
C570 Z-.01
C571 16V 100μ
L570 100μH
IC570
LC35178ML-15
VCC
A8
A9
WE
OE
A10
CE
I/O8
I/O7
I/O6
I/O5
I/O4
A7
A6
A5
A4
A3
A2
A1
A0
I/O1
I/O2
I/O3
GND
D0
D1
D2
D3
D4
D5
D6
D7
A12
IC571
SAA5246AGP/E
A11
OEB
WEB
VDDD
VSSD
OSC OUT
OSC IN
OSC GND
VSSA
REF-
REF+
N/C
BLACK
CVBS
IREF
VDDA
POL
STTV/LFB
VCRB/FFB
R
G
B
RGBREF
BLAN
CORB
EVEN/ODDB
Y
SCL
SDA
L571 100μH
C572 16V 100μ
C573 Z-.01
C574 10 CH
C575 15 CH
C576 1000
R570 3.3K
L572 4.7μH
X570 27MHz
C577 16V 100μ
C579 Z-.1
C578 Z-.01
R571 10
R572 10K
R573 10K
C580 Z-.1
C581 Z-.1
R574 27K
N.C
GND-D
GND-A
VIDEO-IN
I2C-CLK
I2C-DATA
STBY5
EP
MP
PCB-MAIN(MC)

All NPN transistors are 2SC3052-E·F
unless otherwise specified.
All PNP transistors are 2SA1235-E·F
unless otherwise specified.

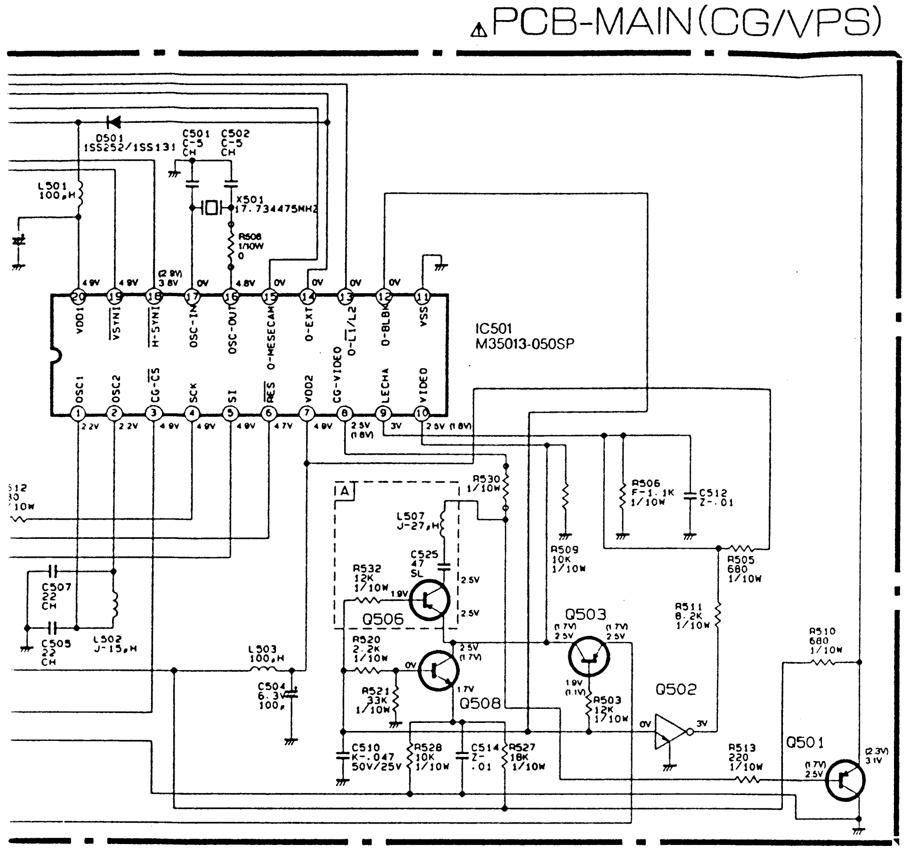

IS
22K
22K
DTC124EK/UN2212

○ : Employed × : Not employed

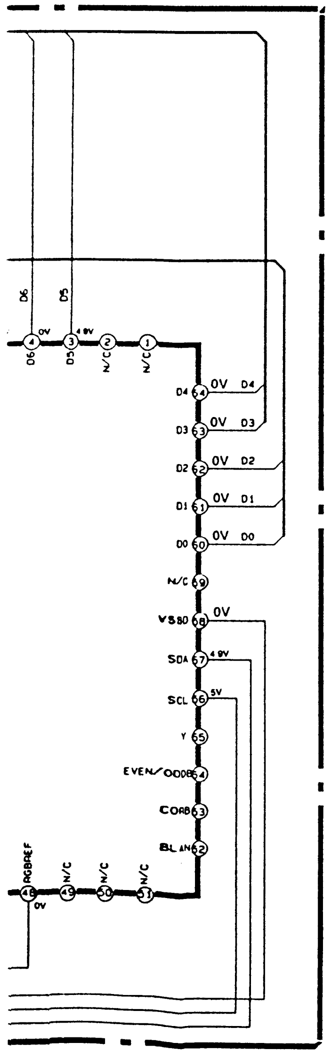
MODELS \ SYMBOL NO	A	B	C	D	L572	C575	R530
HS-M40V(Y),HS-M30(Y),V(Y)	○	×	×	×	×	×	390
HS-M40V(B)	×	×	×	×	×	×	0Ω
HS-M40V(E),(EE),HS-M30V(E),(EE)	○	○	○	○	×	×	390
HS-M40V(G),HS-M30V(G)	○	○	○	○	×	×	390
HS-M40V(IR)	×	×	×	×	×	×	0Ω


8
BB
G
J-2
C901 250V
L901
C902 250V
N

5 6 7 8 9 10 11 12

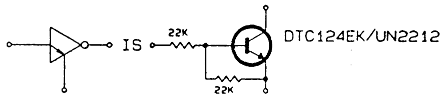


⚠PCB-MAIN(CG/VPS)
D501 1SS252/1SS131
C501 C-5 CH
C502 C-5 CH
L501 100μH
X501 17.734475MHZ
R508
IC501 M35013-050SP
VDD1
VSYNI
H-SYNI
OSC-IN
OSC-OUT
O-MESECAM
O-EXT
O-LT/L2
O-BLB
VSS
OSC1
OSC2
CG-CS
SCK
SI
RES
VDD2
CG-VIDEO
LECHA
VIDEO
A
L507 U-27μH
R532 12K 1/10W
C525 47 SL
Q506
R530 1/10W
R509 10K 1/10W
R506 F-1.1K 1/10W
C512 Z-.01
R505 680 1/10W
R511 8.2K 1/10W
Q503
R520 2.2K 1/10W
R521 33K 1/10W
Q508
R503 12K 1/10W
Q502
R510 680 1/10W
C507 22 CH
C505 22 CH
L502 J-15μH
L503 100μH
C504 6.3V 100μ
C510 K-.047 50V/25V
R528 10K 1/10W
C514 Z-.01
R527 18K 1/10W
R513 220 1/10W
Q501



D4
D3
D2
D1
D0
0V
N/C
VSS0
SDA
SCL
Y
EVEN/ODD
CORB
BLIN
RGBREF

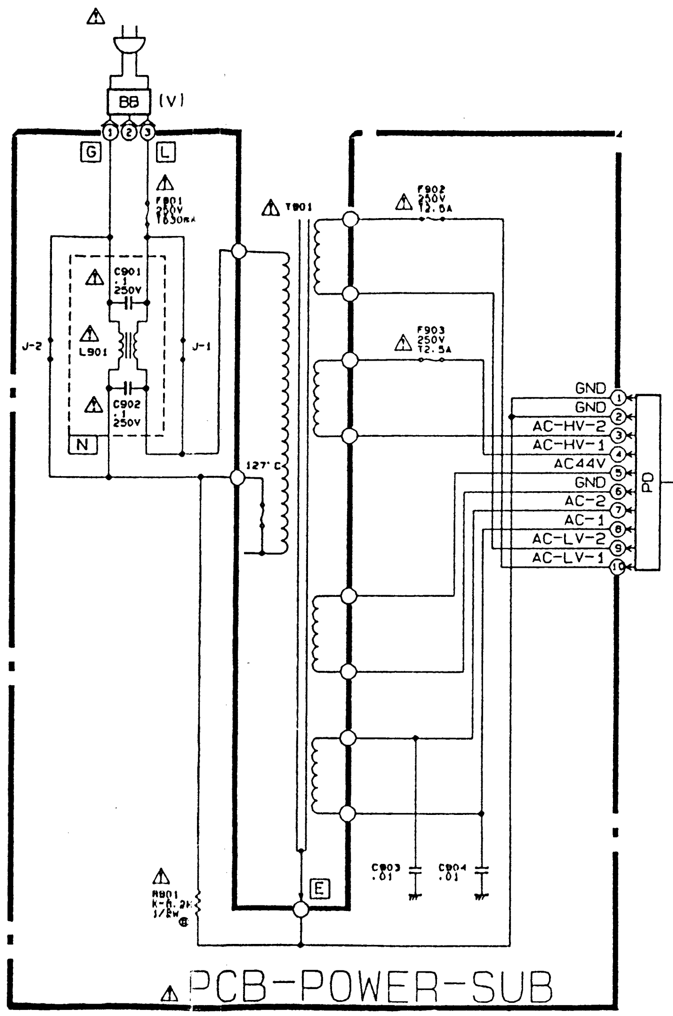
All NPN transistors are 2SC3052-E·F unless otherwise specified.
All PNP transistors are 2SA1235-E·F unless otherwise specified.



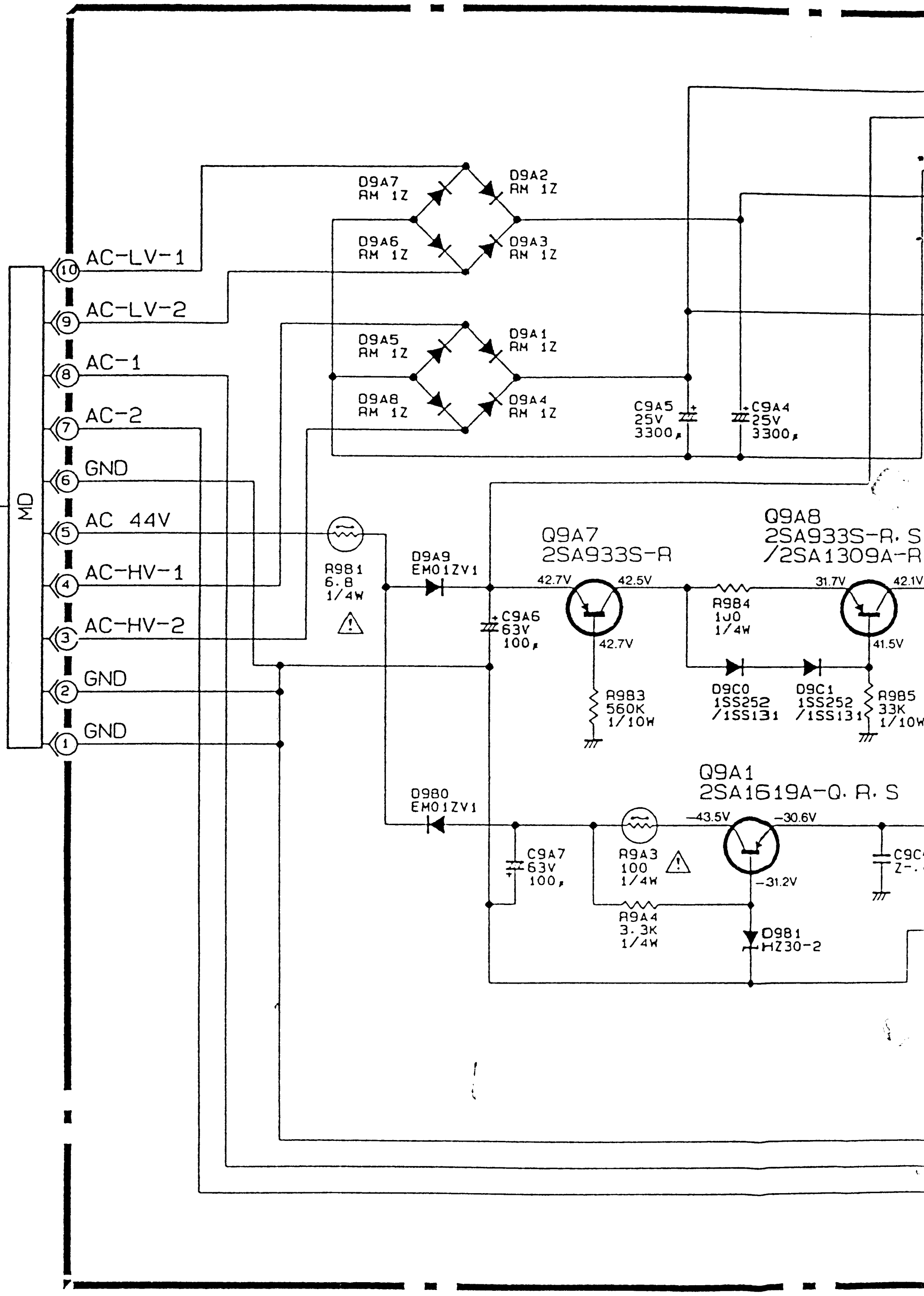
IS
22K
22K
DTC124EK/UN2212

○ : Employed × : Not employed

MODELS / SYMBOL NO	A	B	C	D	L572	C575	R530
HS-M40V(Y),HS-M30(Y),V(Y)	○	×	×	×	×	×	390
HS-M40V(B)	×	×	×	×	×	×	0Ω
HS-M40V(E),(EE),HS-M30V(E),(EE)	○	○	○	○	×	×	390
HS-M40V(G),HS-M30V(G)	○	○	○	○	×	×	390
HS-M40V(IR)	×	×	×	×	×	×	0Ω



BB (V)
G
L
N
E
F901 250V T630mA
C901 250V
L901
C902 250V
J-2
J-1
T901
F902 250V T2.5A
F903 250V T2.5A
127°C
R901 K-8.2M 1/2W
C903 .01
C904 .01
GND
GND
AC-HV-2
AC-HV-1
AC44V
GND
AC-2
AC-1
AC-LV-2
AC-LV-1
PD
⚠PCB-POWER-SUB

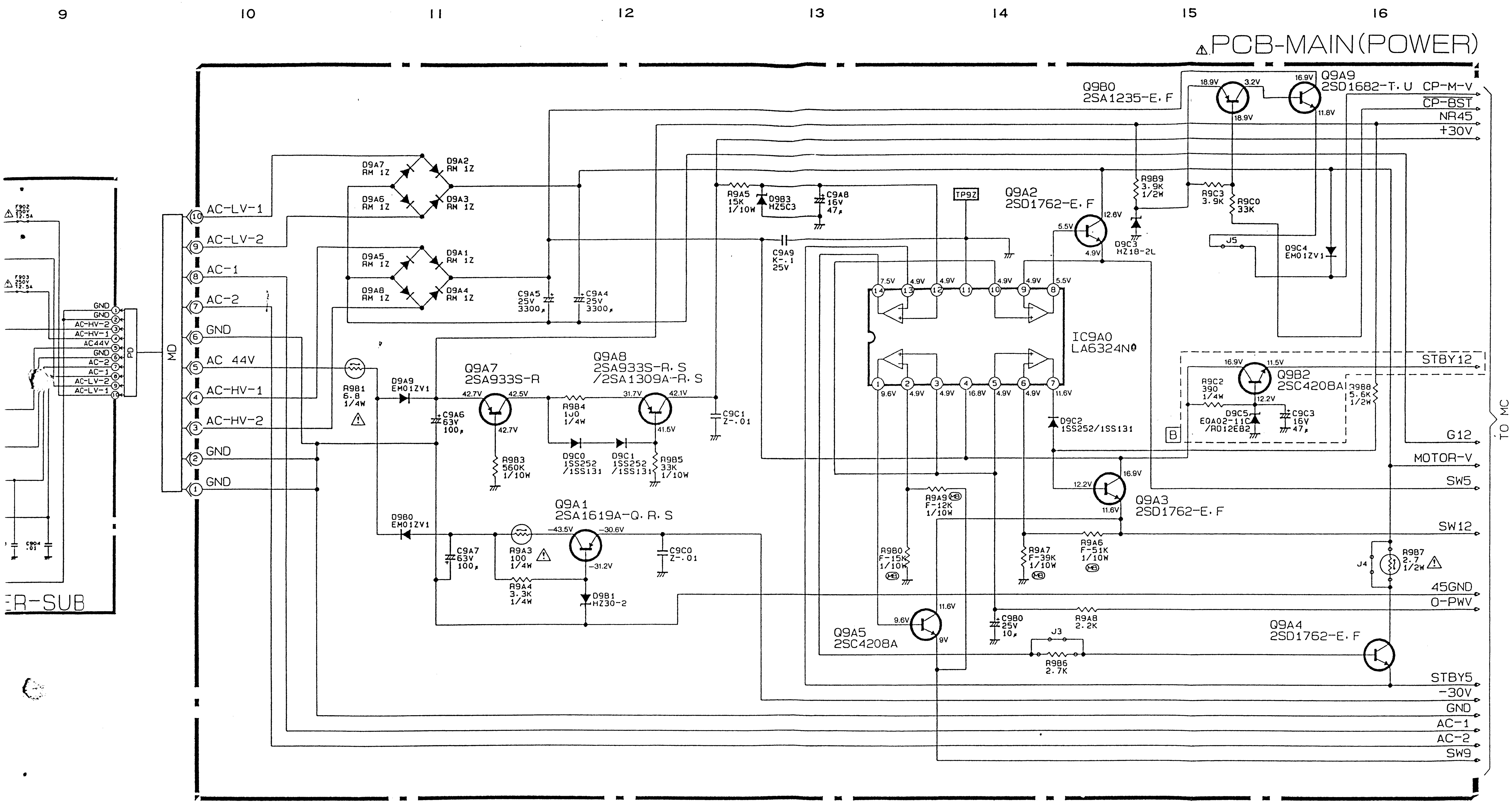


MD
AC-LV-1
AC-LV-2
AC-1
AC-2
GND
AC 44V
AC-HV-1
AC-HV-2
GND
GND
D9A7 RM 1Z
D9A2 RM 1Z
D9A6 RM 1Z
D9A3 RM 1Z
D9A5 RM 1Z
D9A1 RM 1Z
D9A8 RM 1Z
D9A4 RM 1Z
C9A5 25V 3300μ
C9A4 25V 3300μ
R981 6.8 1/4W
D9A9 EM01ZV1
Q9A7 2SA933S-R
C9A6 63V 100μ
R983 560K 1/10W
Q9A8 2SA933S-R.S /2SA1309A-R
R984 100 1/4W
D9C0 1SS252 /1SS131
D9C1 1SS252 /1SS131
R985 33K 1/10W
Q9A1 2SA1619A-Q.R.S
D980 EM01ZV1
C9A7 63V 100μ
R9A3 100 1/4W
R9A4 3.3K 1/4W
D981 HZ30-2
42.7V
42.5V
31.7V
42.1V
41.5V
-43.5V
-30.6V
-31.2V

○ : Employed × : Not employed

MODELS / SYMBOL NO	R9B6	J3	R9B7	J4	B AREA	N AREA	J-
HS-M40V(Y)	○	×	×	○	○	×	
HS-M40V(B)	×	○	○	×	×	×	
HS-M40V(G)	○	×	×	○	○	○	
HS-M40V(E),V(IR),(EE)	○	×	×	○	×	×	

⚠PCB-MAIN(POWER)


9
10
11
12
13
14
15
16
AC-LV-1
AC-LV-2
AC-1
AC-2
GND
AC 44V
AC-HV-1
AC-HV-2
GND
GND
MD
PD
ER-SUB
D9A7 RM 1Z
D9A2 RM 1Z
D9A6 RM 1Z
D9A3 RM 1Z
D9A5 RM 1Z
D9A1 RM 1Z
D9A8 RM 1Z
D9A4 RM 1Z
C9A5 25V 3300µ
C9A4 25V 3300µ
R981 6.8 1/4W
D9A9 EM01ZV1
C9A6 63V 100µ
Q9A7 2SA933S-R
Q9A8 2SA933S-R, S /2SA1309A-R, S
R984 1\Omega 1/4W
D9C0 1SS252 /1SS131
D9C1 1SS252 /1SS131
R983 560K 1/10W
R985 33K 1/10W
C9C1 Z-.01
D980 EM01ZV1
C9A7 63V 100µ
R9A3 100 1/4W
R9A4 3.3K 1/4W
Q9A1 2SA1619A-Q, R, S
C9C0 Z-.01
D9B1 HZ30-2
R9A5 15K 1/10W
D9B3 HZ5C3
C9A8 16V 47µ
C9A9 K-.1 25V
TP9Z
IC9A0 LA6324N
Q9A2 2SD1762-E, F
R9B9 3.9K 1/2W
D9C3 HZ18-2L
R9C3 3.9K
R9C0 33K
J5
D9C4 EM01ZV1
Q9B0 2SA1235-E, F
Q9A9 2SD1682-T, U
D9C2 1SS252/1SS131
Q9B2 2SC4208A
R9C2 390 1/4W
D9C5 EQA02-11C /RD12EB2
C9C3 16V 47µ
R9B8 5.6K 1/2W
B
Q9A3 2SD1762-E, F
R9A9 F-12K 1/10W
R9B0 F-15K 1/10W
R9A7 F-39K 1/10W
R9A6 F-51K 1/10W
Q9A5 2SC4208A
C9B0 25V 10µ
R9A8 2.2K
J3
R9B6 2.7K
J4
R9B7 2.7 1/2W
Q9A4 2SD1762-E, F
CP-M-V
CP-BST
NR45
+30V
STBY12
G12
MOTOR-V
SW5
SW12
45GND
O-PWV
STBY5
-30V
GND
AC-1
AC-2
SW9
TO MC

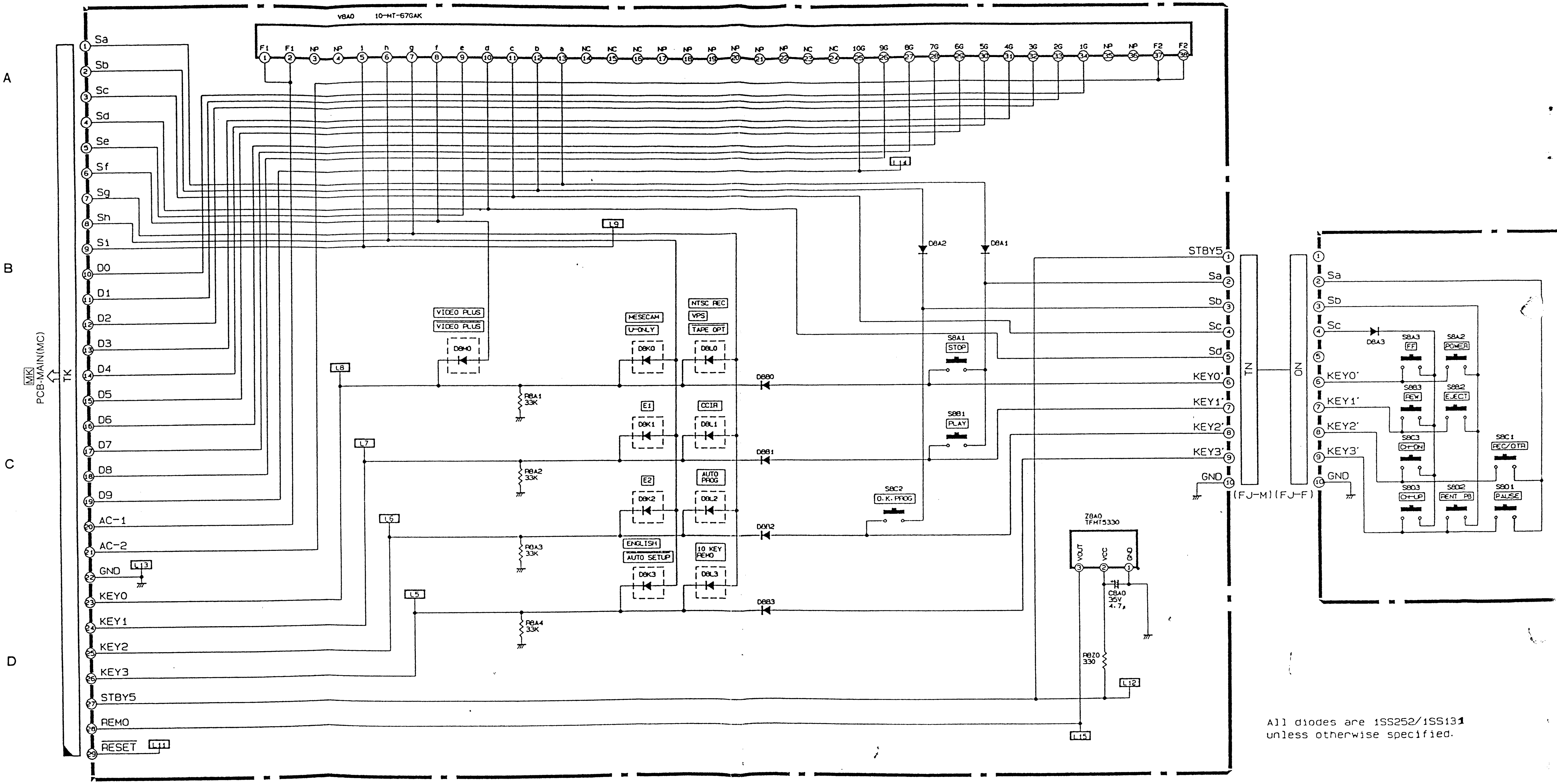
○ : Employed × : Not employed

MODELS / SYMBOL NO	R9B6	J3	R9B7	J4	B AREA	N AREA	J-1,J-2
HS-M40V(Y)	○	×	×	○	○	×	○
HS-M40V(B)	×	○	○	×	×	×	○
HS-M40V(G)	○	×	×	○	○	○	×
HS-M40V(E).V(IR).(EE)	○	×	×	○	×	×	○

○ : Employed × : Not employed

MODELS / SYMBOL NO	R9B6	J3	R9B7	J4	B AREA	N AREA	J-1,J-2
HS-M30(Y).V(Y)	○	×	×	○	○	×	○
HS-M30V(G)	○	×	×	○	○	○	×
HS-M30V(E).(EE)	○	×	×	○	×	×	○

⚠PCB-TIMER(HS-M30 SERIES)


1
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6
7
8
A
B
C
D
V8A0 10-MT-67GAK
F1 F1 NP NP i h g f e d c b a NC NC NC NP NP NP NP NP NP NC NC 10G 9G 8G 7G 6G 5G 4G 3G 2G 1G NP NP F2 F2
Sa
Sb
Sc
Sd
Se
Sf
Sg
Sh
Si
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
AC-1
AC-2
GND
KEY0
KEY1
KEY2
KEY3
STBY5
REMO
RESET
MK PCB-MAIN(MC)
TK
L9
L14
L8
L7
L6
L5
L13
L11
L12
L15
D8A2
D8A1
VIDEO PLUS
VIDEO PLUS
D8M0
MESECAM
U-ONLY
D8K0
NTSC REC
VPS
TAPE OPT
D8L0
E1
D8K1
CCIR
D8L1
E2
D8K2
AUTO PROG
D8L2
ENGLISH
AUTO SETUP
D8K3
10 KEY REMO
D8L3
D8B0
D8B1
D8B2
D8B3
R8A1 33K
R8A2 33K
R8A3 33K
R8A4 33K
S8A1 STOP
S8B1 PLAY
S8C2 O.K.PROG
Z8A0 TFMT5330
VOUT
VCC
GND
C8A0 35V 4.7μ
R8Z0 330
STBY5
Sa
Sb
Sc
Sd
KEY0'
KEY1'
KEY2'
KEY3'
GND
TN
ON
(FJ-M)(FJ-F)
Sa
Sb
Sc
KEY0'
KEY1'
KEY2'
KEY3'
GND
D8A3
S8A3 FF
S8A2 POWER
S8B3 REW
S8B2 EJECT
S8C3 CH-DN
S8C1 REC/OTR
S8D3 CH-UP
S8D2 PENT PB
S8D1 PAUSE

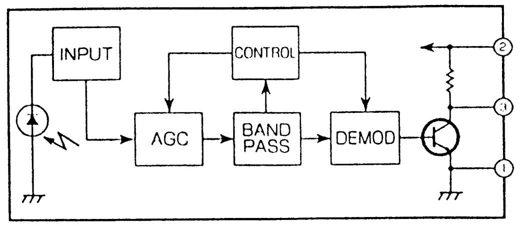
All diodes are 1SS252/1SS131 unless otherwise specified.

○ : Employed × : Not employed

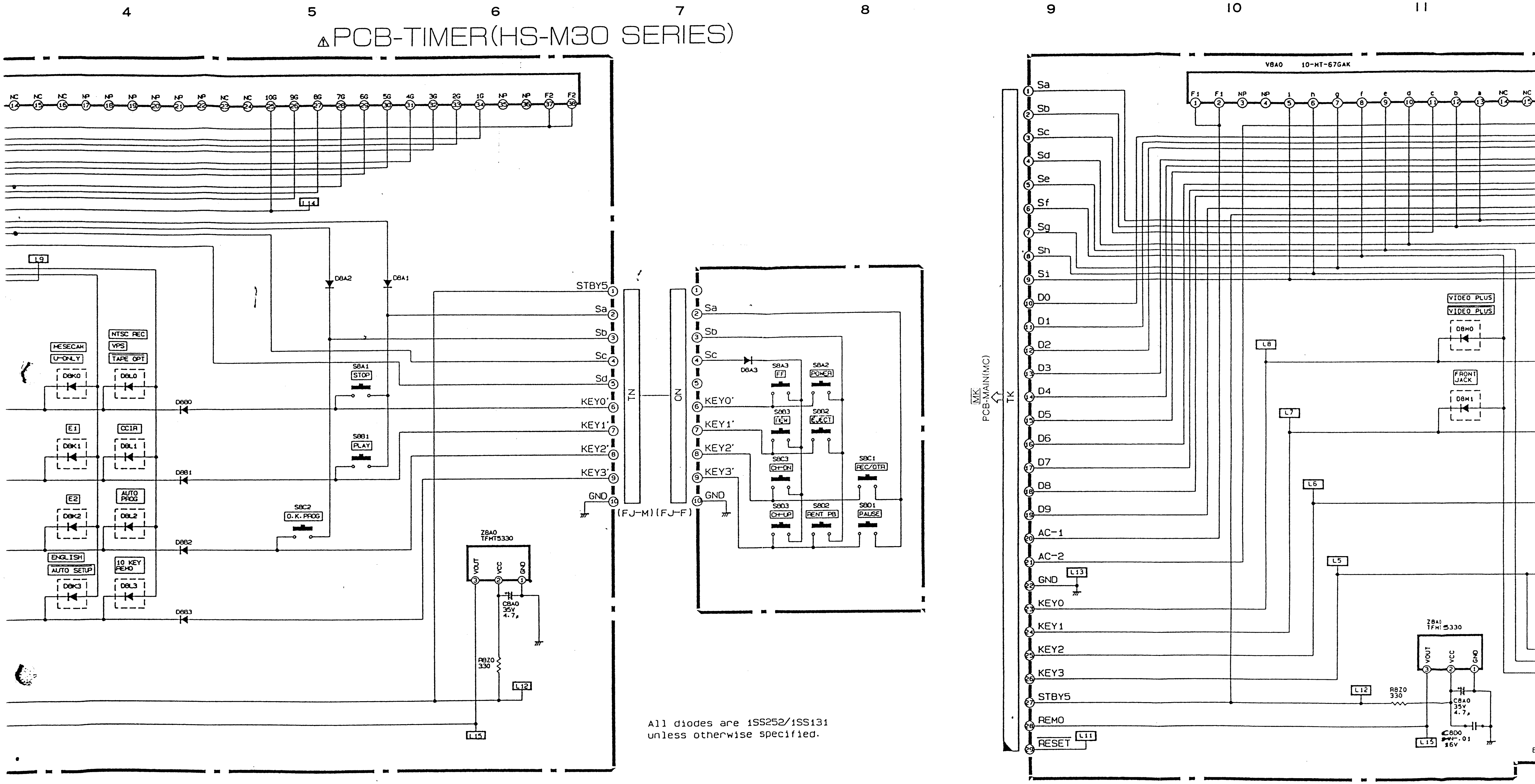
MODELS / SYMBOL NO	D8K0	D8K1	D8K2	D8K3	D8L0	D8L1	D8L2	D8L3	D8M0
HS-M30(Y)	○	○	×	×	×	×	○	×	×
HS-M30V(Y)	○	○	×	×	×	×	○	○	○
HS-M30V(G)	×	○	×	×	○	×	×	○	×
HS-M30V(E)	×	×	○	×	×	×	×	○	×
HS-M30(EE)	×	×	×	○	○	×	×	×	○

E

Z8A0 PREAMAP


INPUT
CONTROL
AGC
BAND PASS
DEMOD
2
3
1

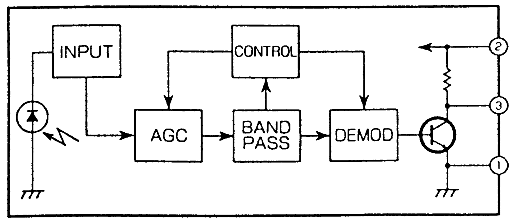
⚠PCB-TIMER(HS-M30 SERIES)


4
5
6
7
8
9
10
11
NC NC NC NP NP NP NP NP NP NC NC 10G 9G 8G 7G 6G 5G 4G 3G 2G 1G NP NP F2 F2
L14
L9
D8A2
D8A1
MESECAM
U-ONLY
D8K0
NTSC REC
VPS
TAPE OPT
D8L0
D8B0
E1
D8K1
CCIR
D8L1
D8B1
E2
D8K2
AUTO PROG
D8L2
D8B2
ENGLISH
AUTO SETUP
D8K3
10 KEY REMO
D8L3
D8B3
S8A1 STOP
S8B1 PLAY
S8C2 O.K. PROG
Z8A0 TFMT5330
VOUT
VCC
GND
C8A0 35V 4.7μ
R8Z0 330
L12
L15
STBY5
Sa
Sb
Sc
Sd
KEY0'
KEY1'
KEY2'
KEY3'
GND
TN
ON
(FJ-M)
(FJ-F)
D8A3
S8A3 FF
S8A2 POWER
S8B3 REW
S8B2 EJECT
S8C3 CH-DN
S8C1 REC/OTR
S8D3 CH-UP
S8D2 RENT PB
S8D1 PAUSE
MK PCB-MAIN(MC)
TK
Sa
Sb
Sc
Sd
Se
Sf
Sg
Sh
Si
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
AC-1
AC-2
GND
L13
KEY0
KEY1
KEY2
KEY3
STBY5
REMO
RESET
L11
V8A0 10-HT-67GAK
F1 F1 NP NP i h g f e d c b a NC NC
VIDEO PLUS
VIDEO PLUS
D8M0
FRONT JACK
D8M1
L8
L7
L6
L5
Z8A0 TFMT5330
VOUT
VCC
GND
L12
R8Z0 330
C8A0 35V 4.7μ
C800 .01 16V
L15

All diodes are 1SS252/1SS131 unless otherwise specified.

M0
<
)
<
<
)

Z8A0 PREAMAP

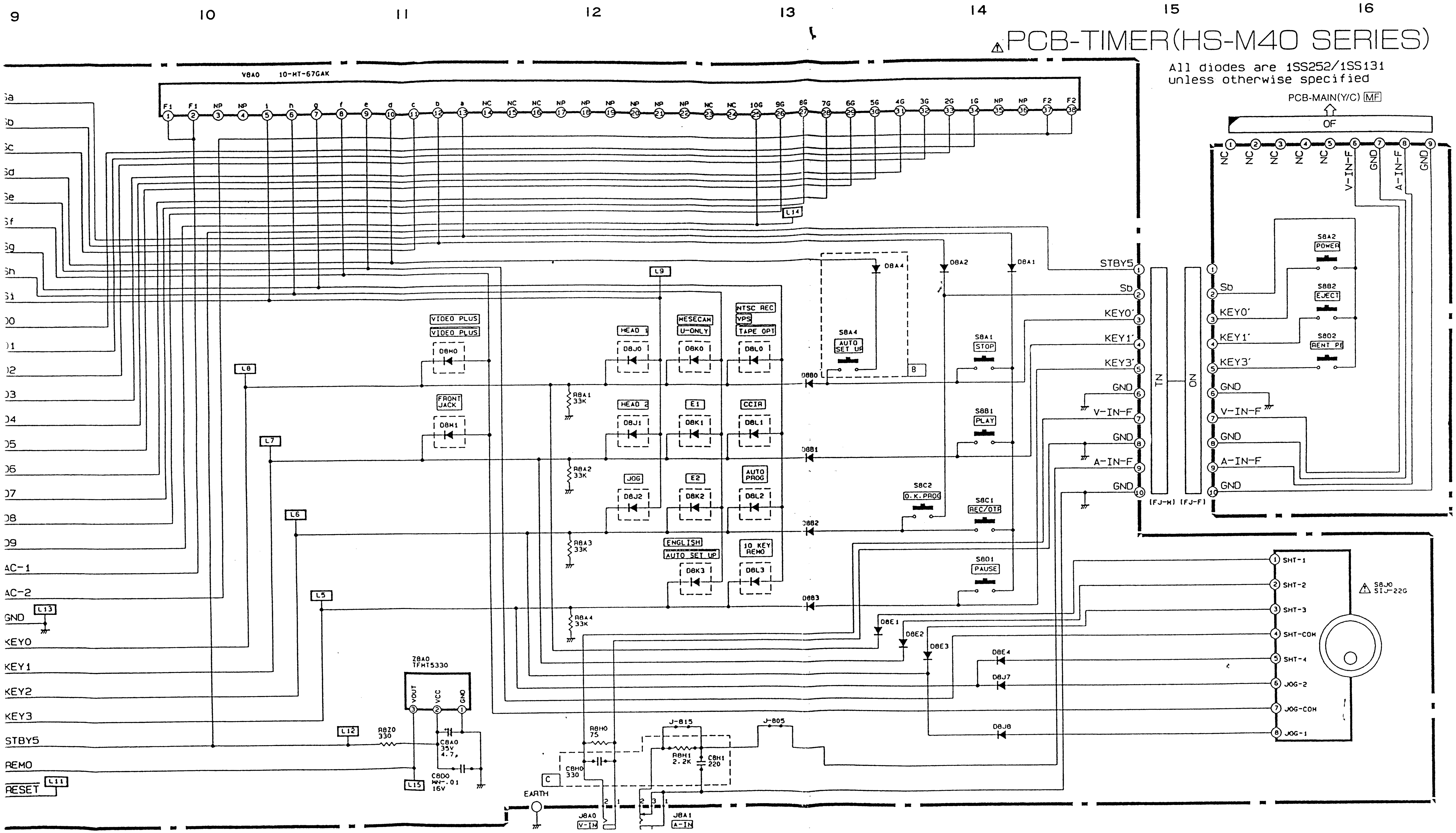

INPUT
CONTROL
AGC
BAND PASS
DEMOD
2
3
1

○ : Employed × : Not employed

MODELS \ SYMBOL NO	D8K0	D8K1	D8K2	D8K3	D8L0	D8L1	D8L2	D8L3	D8M0	B AR
HS-M40V(Y)	○	○	×	×	×	×	○	○	○	×
HS-M40V(B)	○	×	○	×	×	×	×	×	×	○
HS-M40V(G)	×	○	×	×	○	×	×	○	×	×
HS-M40V(IR)	×	×	○	×	×	×	×	×	×	×
HS-M40V(E)	×	×	○	×	×	×	×	○	×	×
HS-M40(EE)	×	×	×	○	○	×	×	×	○	×

⚠PCB-TIMER(HS-M40 SERIES)

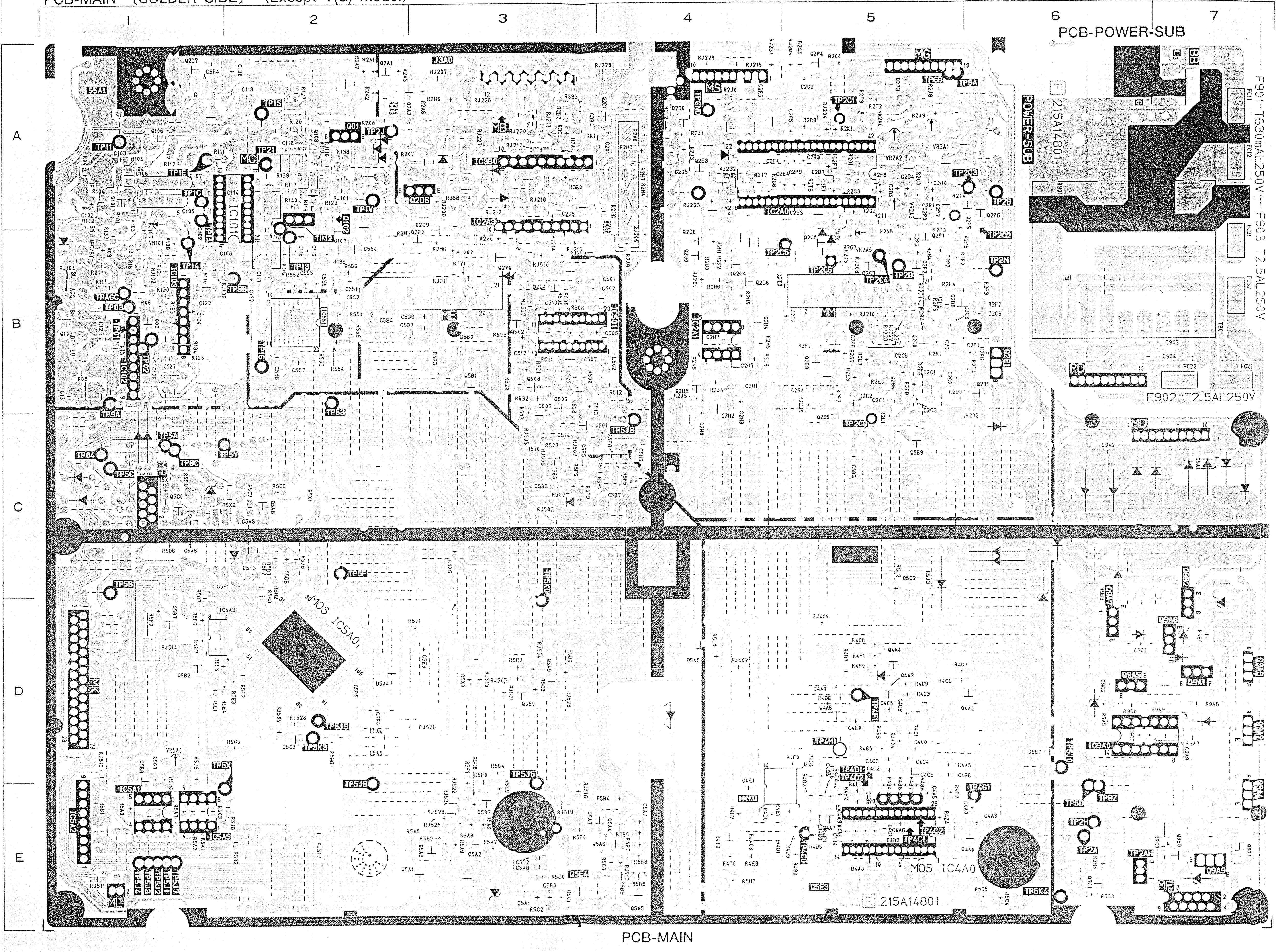
All diodes are 1SS252/1SS131
unless otherwise specified


9
10
11
12
13
14
15
16
V8A0 10-MT-67GAK
F1 F1 NP NP i h g f e d c b a NC NC NC NP NP NP NP NP NP NC NC 10G 9G 8G 7G 6G 5G 4G 3G 2G 1G NP NP F2 F2
L14
L9
L8
L7
L6
L5
L13
L12
L15
L11
VIDEO PLUS
D8M0
FRONT JACK
D8M1
HEAD 1
D8J0
HEAD 2
D8J1
JOG
D8J2
MESECAM U-ONLY
D8K0
E1
D8K1
E2
D8K2
ENGLISH AUTO SET UP
D8K3
NTSC REC VPS TAPE OPT
D8L0
CCIR
D8L1
AUTO PROG
D8L2
10 KEY REMO
D8L3
R8A1 33K
R8A2 33K
R8A3 33K
R8A4 33K
S8A4 AUTO SET UP
D8A4
D8A2
D8A1
B
D8B0
D8B1
D8B2
D8B3
S8A1 STOP
S8B1 PLAY
S8C2 O.K.PROG
S8C1 REC/OTR
S8D1 PAUSE
D8E1
D8E2
D8E3
D8E4
D8J7
D8J8
Z8A0 TFMT5330
VOUT VCC GND
R8Z0 330
C8A0 35V 4.7μ
C8D0 MH-.01 16V
R8H0 75
C8H0 330
C
J-815
J-805
R8H1 2.2K
C8H1 220
EARTH
J8A0 V-IN
J8A1 A-IN
STBY5 Sb KEY0' KEY1' KEY3' GND V-IN-F GND A-IN-F GND
TN
ON
(FJ-M) (FJ-F)
Sb KEY0' KEY1' KEY3' GND V-IN-F GND A-IN-F GND
PCB-MAIN(Y/C) MF
OF
NC NC NC NC NC V-IN-F GND A-IN-F GND
S8A2 POWER
S8B2 EJECT
S8D2 RENT PB
SHT-1 SHT-2 SHT-3 SHT-COM SHT-4 JOG-2 JOG-COM JOG-1
⚠ S8J0 SIJ-22G
Sa Sb Sc Sd Se Sf Sg Sh Si
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9
AC-1 AC-2 GND KEY0 KEY1 KEY2 KEY3 STBY5 REMO RESET

: Employed × : Not employed

ODELS / SYMBOL NO	D8K0	D8K1	D8K2	D8K3	D8L0	D8L1	D8L2	D8L3	D8M0	B AREA	C AREA	J-815
S-M40V(Y)	○	○	×	×	×	×	○	○	○	×	×	○
S-M40V(B)	○	×	○	×	×	×	×	×	×	○	×	○
S-M40V(G)	×	○	×	×	○	×	×	○	×	×	○	×
S-M40V(IR)	×	×	○	×	×	×	×	×	×	×	×	○
S-M40V(E)	×	×	○	×	×	×	×	○	×	×	×	○
S-M40(EE)	×	×	×	○	○	×	×	×	○	×	×	○

PCB-MAIN 〔SOLDER SIDE〕 (Except V(G) model)


1
2
3
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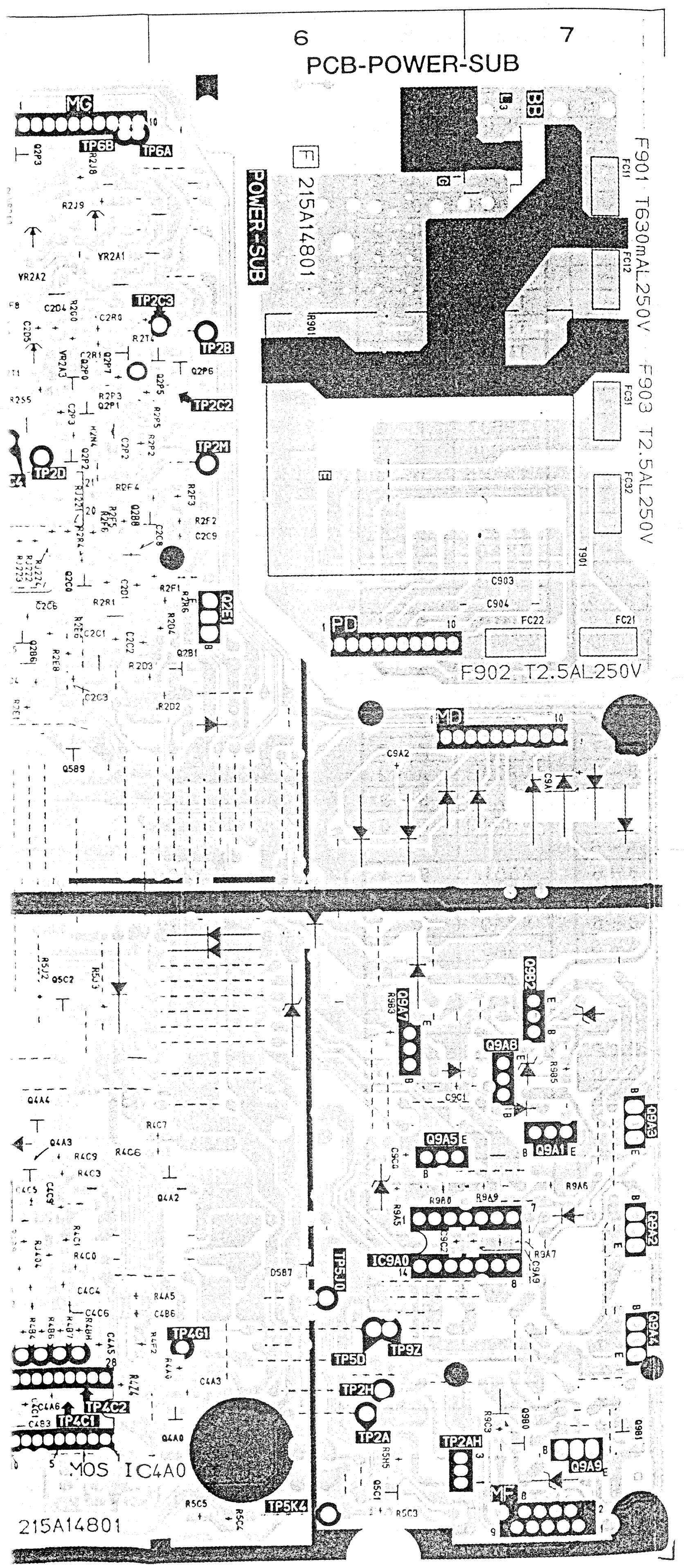
5
6
7
A
B
C
D
E
PCB-POWER-SUB
POWER-SUB
F 215A14801
F901 T630mAL250V
F903 T2.5AL250V
F902 T2.5AL250V
MOS IC5A01
MOS IC4A0
F 215A14801
PCB-MAIN

PCB-

SYMBO NO.
C12
C102
C103
C104
C105
C106
C107
C108
C109
C113
C114
C116
C117
C118
C119
C122
C124
C126
C127
C130
C131
C132
C501
C502
C505
C507
C510
C512
C514
C525
C551
C552
C554
C555
C557
C558
C558
C903
C904
C2C1
C2C2
C2C3
C2C4
C2C6
C2C8
C2C9
C2D1
C2D3
C2D4
C2D5
C2D7
C2E0
C2E1
C2E3
C2E4
C2F4
C2F5
C2F7
C2G2
C2G5



PCB-MAIN 〔SOLDER SIDE〕

SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRESS	SYMBOL NO.	ADDRES
C12	B - 1	C2G7	B - 4	C5F2	C - 2	Q108	B - 1	Q5B7	D - 1	R509	B - 3	R2J1	A - 4	R4C3	D - 5	R5D8	C - 2
C102	A - 1	C2H1	B - 4	C5F3	C - 2	Q501	C - 3	Q5B8	D - 1	R510	C - 3	R2J2	A - 4	R4C6	D - 5	R5E0	E - 3
C103	A - 1	C2H2	C - 4	C5F4	A - 1	Q502	B - 3	Q5B9	C - 5	R511	B - 3	R2J3	A - 4	R4C7	D - 5	R5E1	D - 1
C104	A - 1	C2H3	C - 4	C9A1	C - 7	Q503	B - 3	Q5C0	C - 1	R512	B - 4	R2J4	B - 4	R4C8	D - 5	R5E2	D - 2
C105	A - 1	C2H7	B - 4	C9A2	C - 6	Q506	B - 3	Q5C1	E - 6	R513	B - 3	R2J5	B - 4	R4C9	D - 5	R5E3	D - 2
C106	A - 1	C2J5	A - 3	C9A9	D - 7	Q508	B - 3	Q5C2	C - 5	R520	B - 3	R2J6	B - 4	R4D0	E - 4	R5E4	D - 1
C107	A - 1	C2J8	B - 3	C9C0	D - 6	Q2A0	A - 4	Q5C3	D - 2	R521	B - 3	R2J8	A - 5	R4D1	E - 4	R5E5	D - 1
C108	B - 1	C2K1	A - 3	C9C1	D - 6	Q2A1	A - 2	Q5E3	E - 5	R527	C - 3	R2J9	A - 5	R4D2	E - 5	R5E6	D - [illegible]
C109	B - 1	C2M0	C - 4	C9C2	D - 6	Q2A2	A - 2	Q5E4	E - 3	R528	C - 3	R2K1	A - 5	R4D3	E - 5	R5E7	D - 1
C113	A - 2	C2P2	B - 5			Q2B1	B - 6	Q9A1	D - 7	R530	B - 3	R2K7	A - 2	R4D4	D - 5	R5E8	E - 3
C114	A - 2	C2P3	B - 5	D2A1	A - 3	Q2B5	C - 5	Q9A2	D - 7	R532	B - 3	R2K8	A - 2	R4D5	E - 5	R5E9	E - 3
C116	B - 2	C2P8	B - 5	D2B4	B - 3	Q2B6	B - 5	Q9A3	D - 7	R551	B - 2	R2M5	B - 2	R4D6	D - 5	R5F0	E - 3
C117	B - 2	C2R0	A - 5	D4A0	E - 5	Q2B8	B - 5	Q9A4	E - 7	R552	B - 2	R2M6	B - 3	R4D7	D - 5	R5F1	E - 3
C118	A - 2	C2R1	A - 5	D4T0	E - 4	Q2B9	B - 5	Q9A5	D - 6	R553	B - 2	R2N4	B - 5	R4D8	E - 5	R5F5	C - 4
C119	B - 2	C2R2	A - 4	D5A1	E - 3	Q2C0	B - 5	Q9A7	D - 6	R554	B - 2	R2N5	B - 4	R4D9	E - 5	R5F6	C - 3
C122	B - 1	C2R3	A - 5	D5A4	D - 2	Q2C3	B - 5	Q9A8	D - 7	R555	B - 2	R2N6	B - 4	R4E0	D - 5	R5F8	C - 4
C124	B - 1	C2R4	B - 5	D5A5	D - 4	Q2C4	B - 4	Q9A9	E - 7	R556	B - 2	R2N8	B - 4	R4E1	E - 5	R5F9	C - 3
C126	B - 1	C2R5	A - 4	D5B0	B - 3	Q2C5	B - 5	Q9B0	E - 7	R901	A - 6	R2N9	A - 3	R4E2	E - 4	R5G0	C - 3
C127	B - 1	C2X1	A - 4	D5B7	D - 6	Q2C6	B - 4	Q9B1	E - 7	R2A0	A - 4	R2P2	B - 5	R4E3	E - 4	R5G4	D - 3
C130	A - 2	C3B4	A - 3			Q2C8	B - 4	Q9B2	C - 7	R2A1	A - 2	R2P3	B - 5	R4E6	E - 5	R5G5	[illegible] - 2
C131	B - 1	C4A3	E - 6	F901	A - 7	Q2D0	A - 4			R2A2	A - 2	R2P5	B - 5	R4E7	E - 4	R5G7	[illegible] 1
C132	B - 2	C4A5	E - 5	F902	B - 7	Q2D1	A - 4	R01	B - 1	R2A3	A - 2	R2P7	B - 5	R4E9	E - 5	R5G9	D - 1
C501	B - 3	C4A6	E - 5	F903	B - 7	Q2D4	B - 4	R03	B - 1	R2A4	A - 2	R2P9	A - 5	R4F0	D - 5	R5H0	E - 1
C502	B - 3	C4A7	E - 5			Q2D5	B - 4	R04	A - 1	R2A5	A - 2	R2R1	B - 5	R4F1	D - 5	R5H2	C - 2
C505	B - 3	C4A9	E - 5	FC11	A - 7	Q2D6	A - 3	R06	B - 1	R2A6	A - 3	R2R2	B - 4	R4F2	E - 5	R5H3	C - 2
C507	B - 3	C4B3	E - 5	FC12	A - 7	Q2D7	A - 1	R08	B - 1	R2A7	A - 2	R2R4	B - 5	R4T0	E - 4	R5H5	E - 6
C510	B - 3	C4B4	E - 5	FC21	B - 7	Q2D9	B - 3	R11	B - 1	R2A8	B - 4	R2R6	B - 6	R4Z4	E - 5	R5H7	E - 4
C512	B - 3	C4B6	D - 5	FC22	B - 7	Q2E0	B - 3	R12	B - 1	R2D2	B - 5	R2R9	A - 5	R5A0	E - 1	R5H8	D - 2
C514	C - 3	C4B8	E - 5	FC31	B - 7	Q2E1	B - 6	R13	B - 1	R2D3	B - 5	R2S3	B - 5	R5A1	E - 1	R5J0	D - 4
C525	B - 3	C4C1	E - 5	FC32	B - 7	Q2E3	A - 4	R16	B - 1	R2D4	B - 5	R2S5	B - 5	R5A2	E - 1	R5J1	D - 3
C551	B - 2	C4C2	D - 5			Q2P0	A - 5	R101	A - 1	R2E1	C - 5	R2T1	A - 5	R5A3	E - 1	R5J2	C - 5
C552	B - 2	C4C3	D - 5	IC101	A - 2	Q2P1	B - 5	R102	A - 1	R2E2	B - 5	R2T2	A - 5	R5A5	E - 3	R5J3	C - 5
C554	B - 2	C4C4	D - 5	IC102	B - 1	Q2P2	B - 5	R103	A - 1	R2E3	B - 5	R2T4	A - 5	R5A6	E - 3	R5J5	D - 1
C555	B - 2	C4C5	D - 5	IC103	B - 1	Q2P3	A - 5	R104	A - 1	R2E5	B - 5	R2T5	B - 5	R5A7	E - 3	R5J6	C - 2
C557	B - 2	C4C6	D - 5	IC501	B - 3	Q2P4	A - 5	R105	A - 1	R2E6	B - 5	R2T6	A - 4	R5A8	E - 3	R5J8	E - 2
C558	B - 2	C4C7	D - 5	IC551	B - 2	Q2P5	A - 5	R110	B - 1	R2E7	B - 5	R2T7	A - 4	R5A9	E - 3	R5K3	E - 1
C558	B - 2	C4C9	D - 5	IC2A0	A - 5	Q2P6	A - 6	R111	A - 1	R2E8	B - 5	R2T8	B - 4	R5B0	E - 3	R5M1	C - 3
C903	B - 7	C4D5	D - 5	IC2A1	B - 4	Q2P7	A - 5	R112	A - 1	R2F1	B - 5	R2T9	A - 5	R5B1	E - 1	R5P0	D - 1
C904	B - 7	C4E0	D - 5	IC2A3	A - 3	Q2U0	B - 4	R115	B - 2	R2F2	B - 6	R2U0	B - 4	R5B2	E - 2	R5X0	D - 3
C2C1	B - 5	C4E1	E - 4	IC3B0	A - 3	Q2V0	B - 3	R116	B - 2	R2F3	B - 6	R2V0	B - 3	R5B3	B - 3	R5X1	C - 2
C2C2	B - 5	C5A2	D - 2	IC4A0	E - 5	Q4A0	E - 6	R117	A - 2	R2F4	B - 5	R2V1	B - 3	R5B4	E - 4	R5X2	C [illegible] 1
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C2C4	B - 5	C5A5	D - 2	IC5A0	D - 2	Q4A3	D - 5	R119	A - 2	R2F6	B - 5	R3B2	A - 3	R5B6	E - 4	R5X7	C - 1
C2C6	B - 5	C5A6	C - 1	IC5A1	E - 1	Q4A4	D - 5	R120	A - 2	R2F7	B - 5	R3B3	A - 3	R5B7	E - 4	R9A5	D - 6
C2C8	B - 5	C5A7	E - 4	IC5A2	E - 1	Q4A8	D - 5	R127	A - 2	R2F8	A - 5	R3B5	A - 4	R5B8	E - 4	R9A6	D - 7
C2C9	B - 6	C5A8	E - 3	IC5A3	D - 1	Q5A1	E - 3	R129	A - 2	R2G0	A - 5	R3B8	A - 3	R5B9	E - 4	R9A7	D - 7
C2D1	B - 5	C5B0	E - 3	IC5A5	E - 1	Q5A2	E - 3	R130	B - 1	R2G1	A - 5	R3C1	A - 3	R5C0	E - 3	R9A9	D - 7
C2D3	B - 4	C5B3	C - 5	IC9A0	D - 6	Q5A3	E - 3	R131	B - 1	R2G2	A - 5	R4A0	E - 6	R5C1	E - 3	R9B0	D - 6
C2D4	A - 5	C5B5	C - 3			Q5A4	E - 4	R132	B - 1	R2G3	A - 5	R4A5	D - 5	R5C2	E - 3	R9B3	C - 6
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C2E3	A - 5	C5D6	C - 2	Q01	A - 2	Q5A9	D - 3	R138	A - 2	R2H1	B - 4	R4B5	D - 5	R5C7	C - 2	RJ102	B - 1
C2E4	A - 4	C5D7	B - 2	Q02	B - 1	Q5B0	D - 3	R139	A - 2	R2H3	A - 4	R4B6	E - 5	R5C8	E - 4	RJ104	B - 1
C2F4	A - 4	C5D8	B - 2	Q101	A - 1	Q5B1	B - 3	R148	A - 2	R2H4	A - 4	R4B7	E - 5	R5D0	D - 3	RJ105	B - 1
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C2G5	A - 4	C5F1	C - 2	Q107	B - 2	Q5B6	C - 3	R508	B - 3	R2J0	A - 4	R4C1	D - 5	R5D6	C - 1	RJ202	B - 3

ADDRESS
C - 2
C - 2
A - 1
C - 7
C - 6
D - 7
D - 6
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D - 6
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B - 3
E - 5
E - 4
E - 3
D - 2
D - 4
B - 3
D - 6
A - 7
B [illegible]
B [illegible]
A - 7
A - 7
B - 7
B - 7
B - 7
B - 7
A - 2
B - 1
B - 1
B - 3
B - 2
A - 5
B - 4
A - 3
A - 3
E - 5
E - 4
D [illegible]
E - 1
E - 1
D - 1
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D - 6
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A - 2
B - 1
A - 1
A - 2
A - 2
A - 1
B - 2

SYMBOL NO.	ADDRESS
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Q503	B - 3
Q506	B - 3
Q508	B - 3
Q2A0	A - 4
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Q2A2	A - 2
Q2B1	B - 6
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Q2B6	B - 5
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Q2B9	B - 5
Q2C0	B - 5
Q2C3	B - 5
Q2C4	B - 4
Q2C5	B - 5
Q2C6	B - 4
Q2C8	B - 4
Q2D0	A - 4
Q2D1	A - 4
Q2D4	B - 4
Q2D5	B - 4
Q2D6	A - 3
Q2D7	A - 1
Q2D9	B - 3
Q2E0	B - 3
Q2E1	B - 6
Q2E3	A - 4
Q2P0	A - 5
Q2P1	B - 5
Q2P2	B - 5
Q2P3	A - 5
Q2P4	A - 5
Q2P5	A - 5
Q2P6	A - 6
Q2P7	A - 5
Q2U0	B - 4
Q2V0	B - 3
Q4A0	E - 6
Q4A2	D - 5
Q4A3	D - 5
Q4A4	D - 5
Q4A8	D - 5
Q5A1	E - 3
Q5A2	E - 3
Q5A3	E - 3
Q5A4	E - 4
Q5A5	E - 4
Q5A6	E - 4
Q5A7	E - 3
Q5A8	C - 2
Q5A9	D - 3
Q5B0	D - 3
Q5B1	B - 3
Q5B2	D - 1
Q5B3	E - 3
Q5B5	C - 3
Q5B6	C - 3

SYMBOL NO.	ADDRESS
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Q5C1	E - 6
Q5C2	C - 5
Q5C3	D - 2
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Q5E4	E - 3
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Q9A3	D - 7
Q9A4	E - 7
Q9A5	D - 6
Q9A7	D - 6
Q9A8	D - 7
Q9A9	E - 7
Q9B0	E - 7
Q9B1	E - 7
Q9B2	C - 7
R01	B - 1
R03	B - 1
R04	A - 1
R06	B - 1
R08	B - 1
R11	B - 1
R12	B - 1
R13	B - 1
R16	B - 1
R101	A - 1
R102	A - 1
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R116	B - 2
R117	A - 2
R118	A - 2
R119	A - 2
R120	A - 2
R127	A - 2
R129	A - 2
R130	B - 1
R131	B - 1
R132	B - 1
R133	B - 1
R134	B - 1
R135	B - 1
R136	B - 2
R138	A - 2
R139	A - 2
R148	A - 2
R503	C - 3
R505	B - 3
R506	B - 3
R508	B - 3

SYMBOL NO.	ADDRESS
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R511	B - 3
R512	B - 4
R513	B - 3
R520	B - 3
R521	B - 3
R527	C - 3
R528	C - 3
R530	B - 3
R532	B - 3
R551	B - 2
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R553	B - 2
R554	B - 2
R555	B - 2
R556	B - 2
R901	A - 6
R2A0	A - 4
R2A1	A - 2
R2A2	A - 2
R2A3	A - 2
R2A4	A - 2
R2A5	A - 2
R2A6	A - 3
R2A7	A - 2
R2A8	B - 4
R2D2	B - 5
R2D3	B - 5
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R2E7	B - 5
R2E8	B - 5
R2F1	B - 5
R2F2	B - 6
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R2F4	B - 5
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R2F6	B - 5
R2F7	B - 5
R2F8	A - 5
R2G0	A - 5
R2G1	A - 5
R2G2	A - 5
R2G3	A - 5
R2G4	A - 5
R2G5	A - 5
R2G7	B - 5
R2G8	A - 4
R2H1	B - 4
R2H3	A - 4
R2H4	A - 4
R2H5	B - 4
R2H6	A - 4
R2H7	A - 4
R2J0	A - 4

SYMBOL NO.	ADDRESS
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R2J2	A - 4
R2J3	A - 4
R2J4	B - 4
R2J5	B - 4
R2J6	B - 4
R2J8	A - 5
R2J9	A - 5
R2K1	A - 5
R2K7	A - 2
R2K8	A - 2
R2M5	B - 2
R2M6	B - 3
R2N4	B - 5
R2N5	B - 4
R2N6	B - 4
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R2T8	B - 4
R2T9	A - 5
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R2V1	B - 3
R3B0	A - 3
R3B2	A - 3
R3B3	A - 3
R3B5	A - 4
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R3C1	A - 3
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R4B6	E - 5
R4B7	E - 5
R4B8	E - 5
R4B9	D - 5
R4C0	D - 5
R4C1	D - 5

SYMBOL NO.	ADDRESS
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R4C6	D - 5
R4C7	D - 5
R4C8	D - 5
R4C9	D - 5
R4D0	E - 4
R4D1	E - 4
R4D2	E - 5
R4D3	E - 5
R4D4	D - 5
R4D5	E - 5
R4D6	D - 5
R4D7	D - 5
R4D8	E - 5
R4D9	E - 5
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R5A2	E - 1
R5A3	E - 1
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R5A6	E - 3
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R5C8	E - 4
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R5D2	D - 3
R5D3	D - 3
R5D4	C - 1
R5D6	C - 1

SYMBOL NO.	ADDRESS
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R5E2	D - 2
R5E3	D - 2
R5E4	D - 1
R5E5	D - 1
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R5F9	C - 3
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R5H7	E - 4
R5H8	D - 2
R5J0	D - 4
R5J1	D - 3
R5J2	C - 5
R5J3	C - 5
R5J5	D - 1
R5J6	C - 2
R5J8	E - 2
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R5X6	C - 3
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R9A7	D - 7
R9A9	D - 7
R9B0	D - 6
R9B3	C - 6
R9B5	D - 7
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RJ104	B - 1
RJ105	B - 1
RJ109	B - 1
RJ110	A - 2
RJ201	B - 4
RJ202	B - 3

SYMBOL NO.	ADDRESS
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RJ204	A - 5
RJ205	B - 4
RJ206	A - 3
RJ207	A - 3
RJ208	B - 5
RJ209	A - 4
RJ210	B - 5
RJ211	B - 3
RJ212	A - 3
RJ213	A - 3
RJ214	B - 3
RJ215	B - 3
RJ216	A - 4
RJ217	A - 3
RJ218	A - 3
RJ220	B - 5
RJ221	B - 5
RJ222	B - 5
RJ223	B - 5
RJ224	B - 5
RJ225	A - 3
RJ226	A - 3
RJ227	A - 3
RJ229	A - 4
RJ230	A - 3
RJ231	A - 4
RJ232	A - 4
RJ233	A - 4
RJ401	D - 5
RJ402	D - 4
RJ403	E - 4
RJ404	D - 5
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RJ502	C - 3
RJ503	D - 3
RJ504	D - 3
RJ505	C - 3
RJ506	C - 3
RJ507	C - 3
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RJ510	B - 3
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RJ514	D - 1
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RJ528	D - 2
RJ529	D - 3

SYMBOL NO.	ADDRESS
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TP02	B - 1
TP03	B - 1
TP04	C - 1
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TP12	B - 2
TP13	B - 2
TP14	B - 1
TP16	B - 2
TP21	A - 2
TP53	B - 2
TP1A	A - 2
TP1C	A - 1
TP1E	A - 1
TP1S	A - 2
TP1V	A - 2
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TP2B	A - 6
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TP2H	E - 6
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TP4M1	D - 5
TP5J0	D - 6
TP5J1	E - 1
TP5J2	E - 1
TP5J3	E - 1
TP5J4	E - 1

SYMBOL NO.	ADDRESS
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TP5J6	C - 4
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TP5J8	E - 2
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TP5K0	D - 3
TP5K3	D - 2
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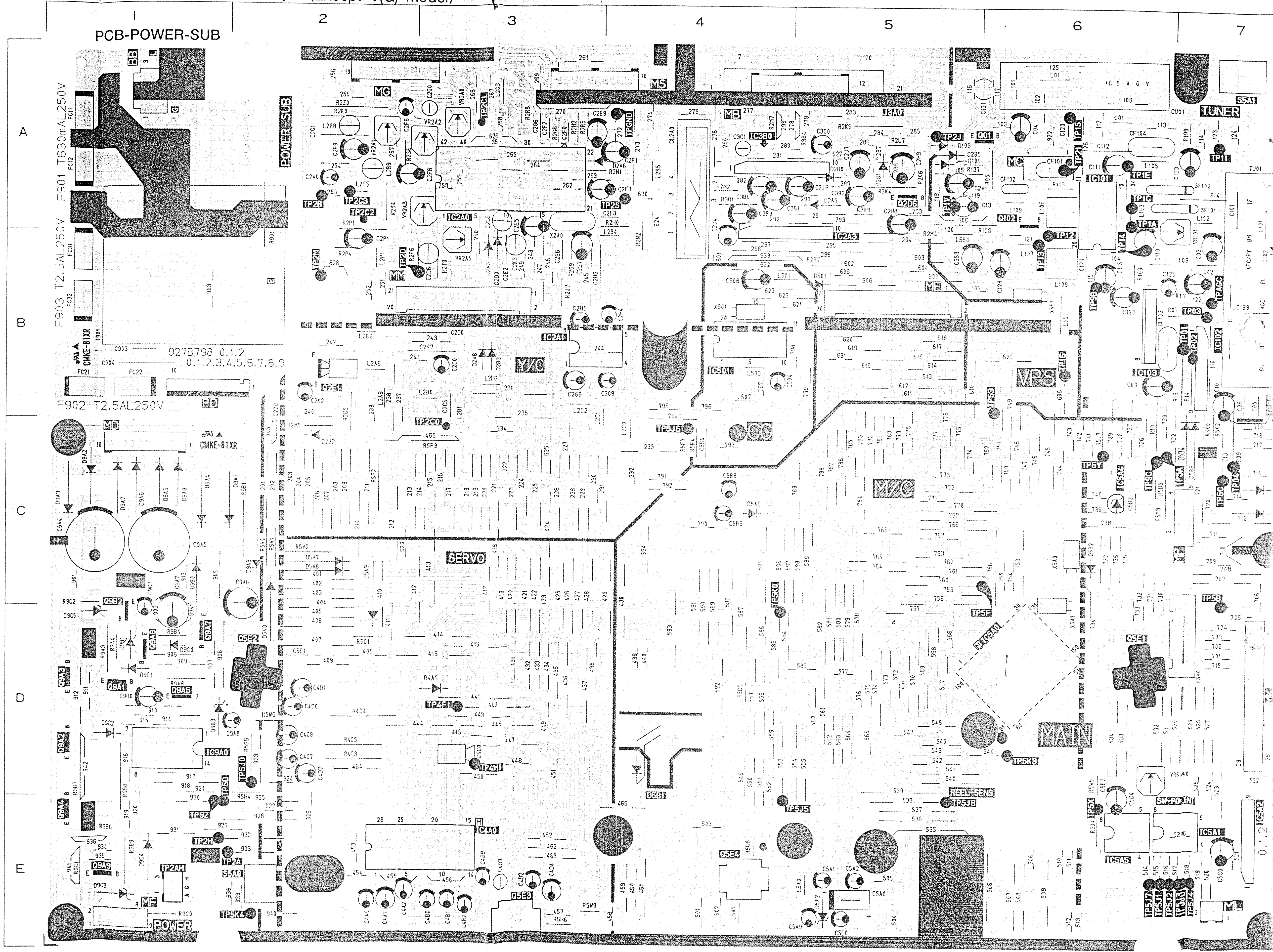
TPAGC	B - 1
TPGND	A - 4
VR101	B - 1
VR2A0	A - 5
VR2A1	A - 5
VR2A2	A - 5
VR2A3	A - 5
VR2A5	B - 5
VR5A0	D - 1

PCB-MAIN 〔COMPONENT SIDE〕 (Except V(G) model)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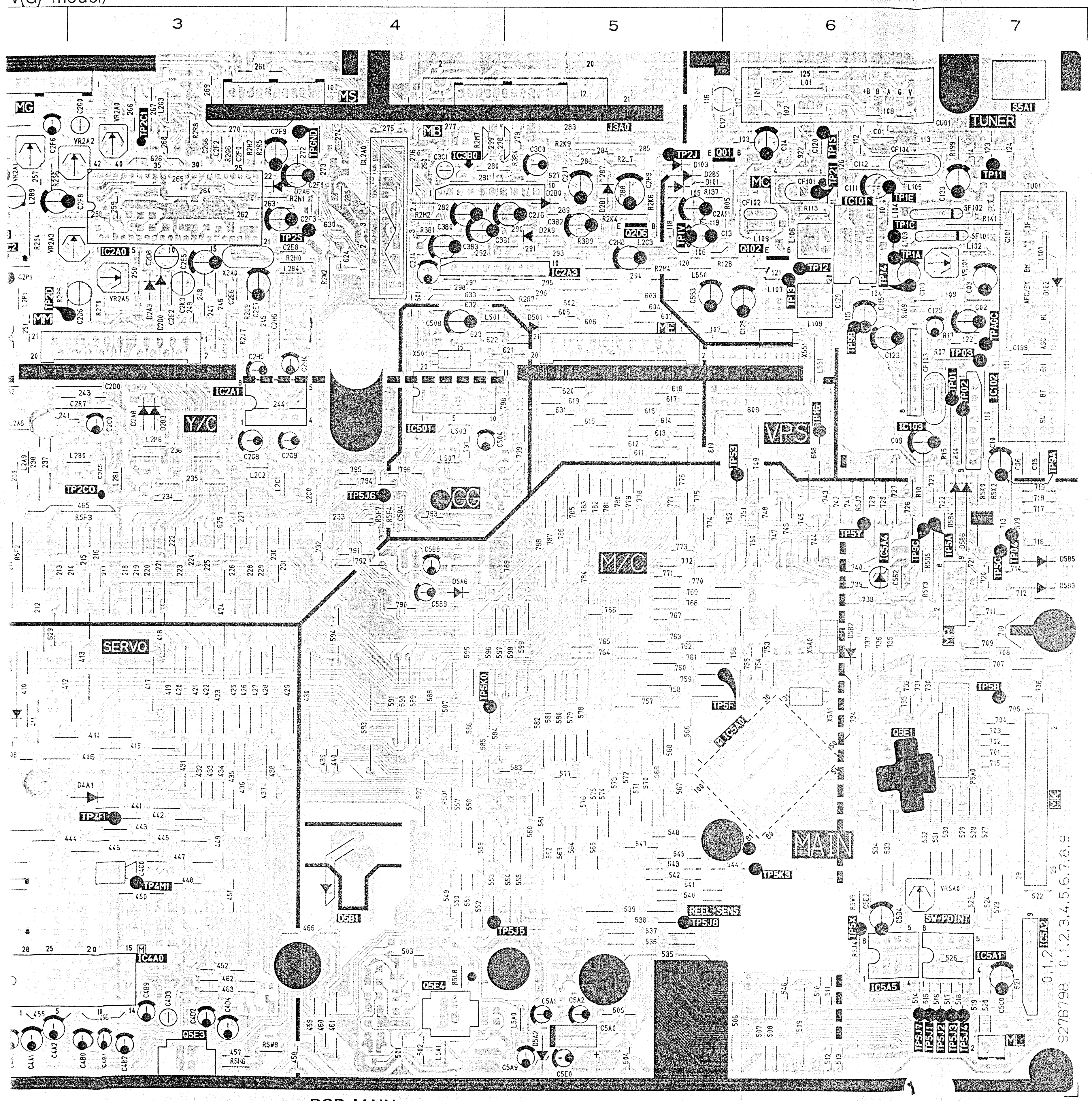
F903 T2.5AL250V
F902 T2.5AL250V
CMKE-81XR
927B798 0.1.2
0.1.2.3.4.5.6.7.8.9
BB
PD
MD
MG
MS
MB
MC
J3A0
TUNER
S5A1
Y/C
VPS
CC
M/C
SERVO
MAIN
MM
ME
KP
POWER
ML
S5A0
IC2A0
IC2A1
IC2A3
IC3B0
IC5E01
IC101
IC102
IC103
IC9A0
IC4A0
IC5A0
IC5A1
IC5A5
Q5E1
Q5E2
Q5E3
Q5E4
REEL-SENS
SW-PD INT
TP5K3
TP5J5
TP5J8
TP5K4
TP2AH

⑩

HS-M30V(E) / (EE) / V(G) / (Y) / V(Y)
HS-M40V(B) / V(E) / (EE) / V(G) / V(IR) / V(Y)

PCB-MAIN

V(G) model)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MB
J3A0
TUNER
S5A1
MC
IC101
IC2A0
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IC2A3
Q2D6
Q01
Q102
TP2J
TP1S
TP21
TP1E
TP1C
TP1A
TP11
TP12
TP13
TP14
TPAGC
TPGND
TP2C1
TP2S
TP2D
MM
IC2A1
Y/C
IC501
TP2C0
TP5J6
CC
VPS
IC103
IC102
TP01
TP02
TP03
TP04
TP53
TP5Y
IC5A4
TP9C
TP9A
TP5C
TP9B
M/C
SERVO
TP5K0
TP5F
IC5A0
Q5E1
TP5B
MAIN
TP5K3
TP4F1
TP4M1
D5B1
TP5J5
REEL SENS
TP5J8
TP5X
SW-POINT
IC5A5
IC5A1
IC5A2
IC4A0
Q5E4
Q5E3
TP5J7
TP5J1
TP5J2
TP5J3
TP5J4
927B798 0.1.2.3.4.5.6.7.8.9

PCB-MAIN

PCB-MAIN 〔COMPONENT SIDE〕

SYMBOL NO.	ADDRESS
CF101	A – 6
CF102	A – 6
CF103	B – 6
CF104	A – 6
CU01	A – 6
D101	A – 5
D102	B – 7
D103	A – 5
D501	B – 5
D2A3	B – 3
D2A6	A – 3
D2A8	B – 3
D2A9	A – 5
D2B0	A – 5
D2B1	A – 5
D2B2	C – 2
D2B3	B – 3
D2B5	A – 5
D2D0	B – 3
D4A1	D – 3
D5A2	E – 5
D5A6	C – 4
D5A7	C – 2
D5A8	C – 2
D5A9	D – 2
D5B1	D – 4
D5B2	C – 6
D5B3	C – 7
D5B4	C – 7
D5B5	C – 7
D5B6	C – 7
D5V0	C – 2
D8A7	C – 1
D9A1	C – 1
D9A2	C – 1
D9A3	C – 1
D9A4	C – 1
D9A5	C – 1
D9A6	C – 1
D9A8	C – 1
D9A9	C – 2
D9B0	C – 1
D9B1	D – 1
D9B3	D – 1
D9C0	D – 1
D9C1	D – 1
D9C2	D – 1
D9C3	E – 1
D9C4	E – 1
D9C5	D – 1
DL2A0	A – 4
F901	A – 1
F902	B – 1
F903	B – 1
FC11	A – 1

SYMBOL NO.	ADDRESS
FC12	A – 1
FC21	B – 1
FC22	B – 1
FC31	B – 1
FC32	B – 1
IC101	A – 6
IC102	B – 7
IC103	B – 6
IC501	B – 4
IC2A0	A – 3
IC2A1	B – 3
IC2A3	A – 4
IC3B0	A – 4
IC4A0	E – 3
IC5A0	D – 6
IC5A1	E – 7
IC5A2	E – 7
IC5A4	C – 6
IC5A5	E – 6
IC9A0	D – 1
J3A0	A – 5
L01	A – 6
L101	A – 7
L102	A – 7
L103	A – 6
L104	A – 6
L105	A – 6
L106	A – 6
L107	B – 6
L108	B – 6
L109	A – 6
L501	B – 4
L503	B – 4
L507	B – 4
L550	B – 5
L551	B – 6
L2A8	B – 2
L2A9	B – 2
L2B0	B – 3
L2B1	B – 3
L2B2	B – 2
L2B4	B – 3
L2B5	A – 4
L2B8	A – 2
L2B9	A – 2
L2C0	C – 4
L2C1	C – 1
L2C2	B – 3
L2C3	A – 5
L2G3	A – 3
L2P1	B – 2
L2P5	A – 2
L2P6	B – 3
L5A0	E – 5
L5A1	E – 4
P5A0	D – 7

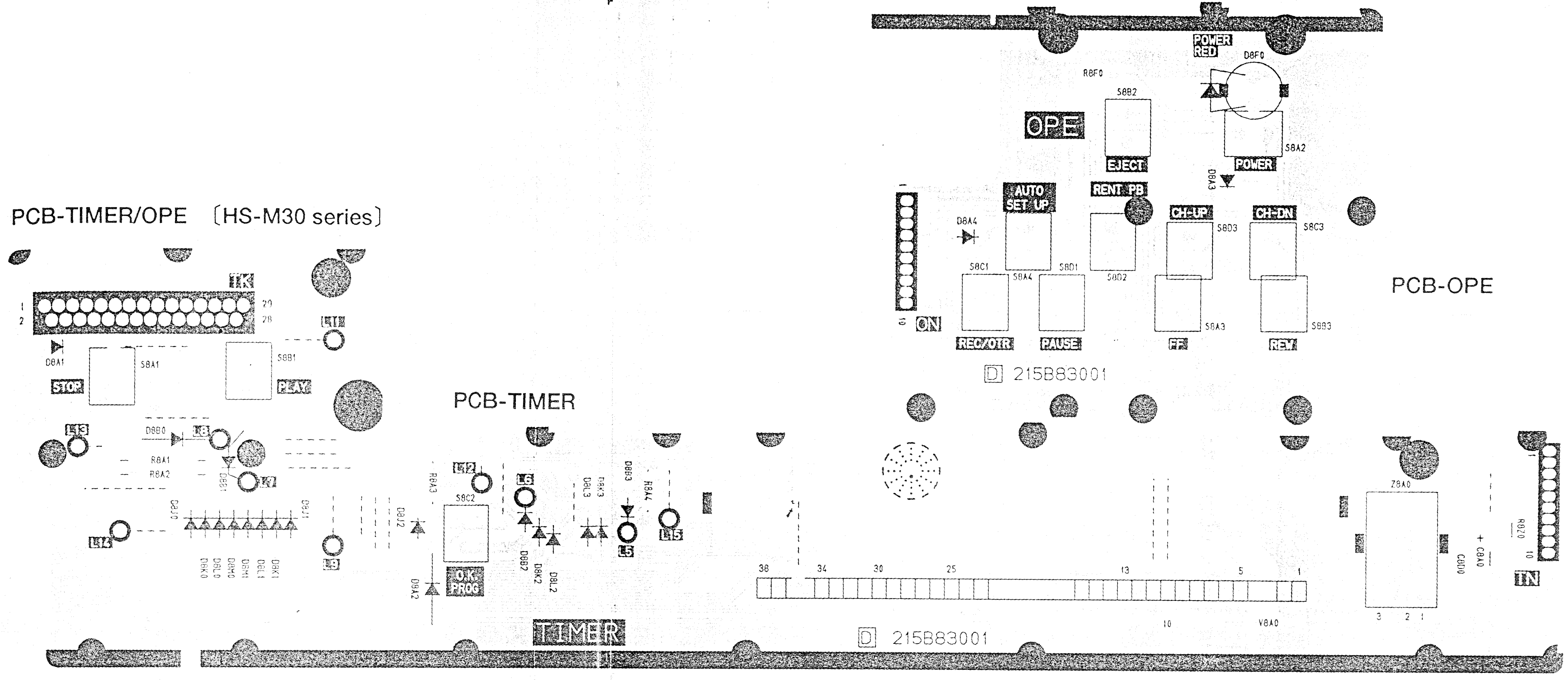
SYMBOL NO.	ADDRESS
Q01	A – 5
Q102	A – 6
Q2D6	A – 5
Q2E1	B – 2
Q5E1	D – 6
Q5E2	D – 2
Q5E3	E – 3
Q5E4	E – 4
Q9A1	D – 1
Q9A2	D – 1
Q9A3	D – 1
Q9A4	E – 1
Q9A5	D – 1
Q9A7	D – 1
Q9A8	D – 1
Q9A9	E – 1
Q9B2	D – 1
S5A0	E – 2
S5A1	A – 7
SF101	A – 6
SF102	A – 6
T901	B – 1
TP01	B – 7
TP02	B – 7
TP03	B – 7
TP04	C – 7
TP11	A – 7
TP12	A – 6
TP13	B – 6
TP14	B – 6
TP16	B – 6
TP21	A – 6
TP53	B – 6
TP1A	A – 6
TP1C	A – 6
TP1E	A – 6
TP1S	A – 6
TP1V	A – 5
TP2A	E – 2
TP2B	A – 2
TP2D	B – 2
TP2H	E – 1
TP2J	A – 5
TP2M	B – 2
TP2S	A – 4
TP5A	C – 6
TP5B	C – 7
TP5C	C – 7
TP5D	E – 1
TP5F	C – 5
TP5X	E – 6
TP5Y	C – 6
TP9A	B – 7
TP9B	B – 6
TP9C	C – 6
TP9Z	E – 1

SYMBOL NO.	ADDRESS
TP2AH	E – 1
TP2C0	C – 3
TP2C1	A – 3
TP2C2	A – 2
TP2C3	A – 2
TP4F1	D – 3
TP4M1	D – 3
TP5J0	D – 2
TP5J1	E – 6
TP5J2	E – 6
TP5J3	E – 7
TP5J4	E – 7
TP5J5	E – 4
TP5J6	C – 4
TP5J7	E – 6
TP5J8	E – 5
TP5K0	D – 4
TP5K3	D – 6
TP5K4	E – 2
TPAGC	B – 7
TPGND	A – 4
TU101	B – 7
VR101	A – 6
VR2A0	A – 3
VR2A1	A – 2
VR2A2	A – 2
VR2A3	A – 2
VR2A5	B – 3
VR5A0	D – 6
X501	B – 4
X551	B – 6
X2A0	A – 3
X5A0	C – 6
X5A1	C – 6

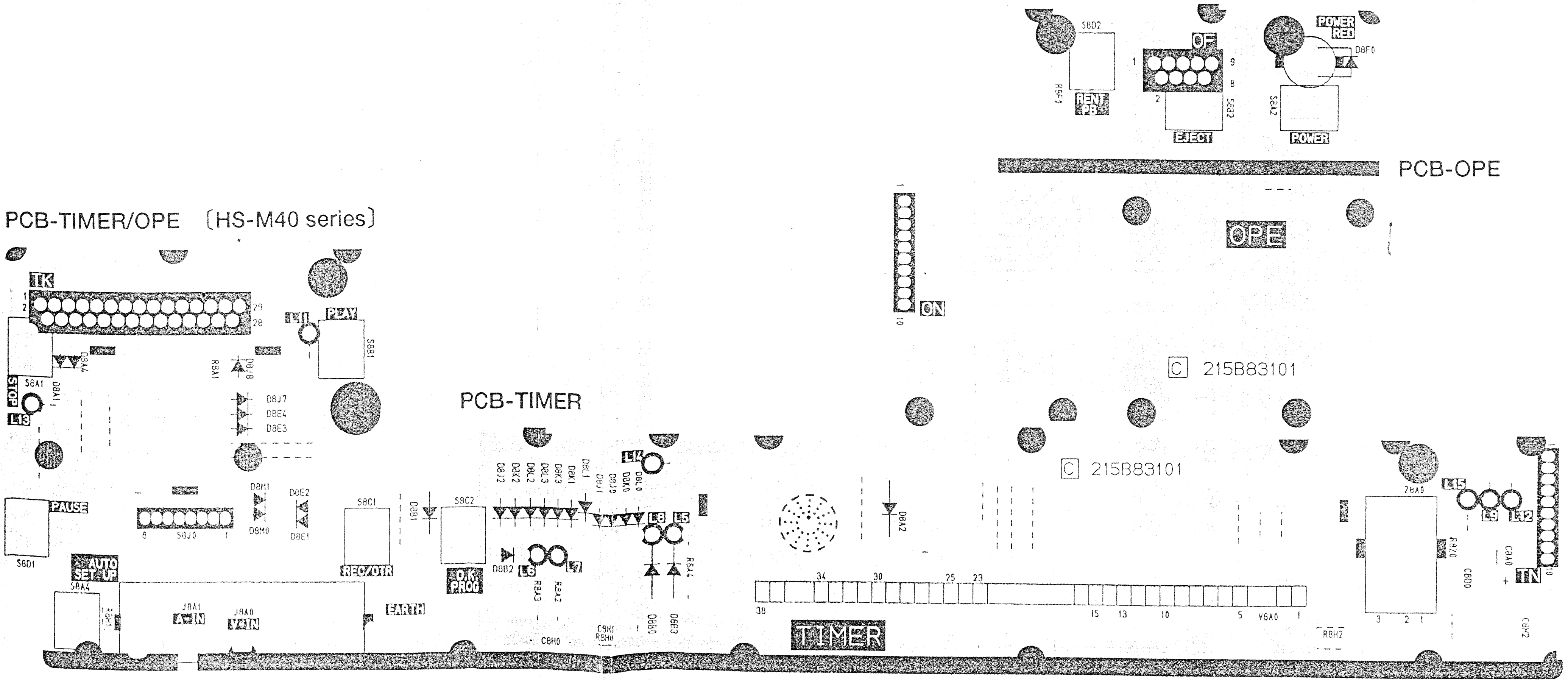
SYMBOL NO.	ADDRESS
Q01	A − 5
Q102	A − 6
Q2D6	A − 5
Q2E1	B − 2
Q5E1	D − 6
Q5E2	D − 2
Q5E3	E − 3
Q5E4	E − 4
Q9A1	D − 1
Q9A2	D − 1
Q9A3	D − 1
Q9A4	E − 1
Q9A5	D − 1
Q9A7	D − 1
Q9A8	D − 1
Q9A9	E − 1
Q9B2	D − 1
S5A0	E − 2
S5A1	A − 7
SF101	A − 6
SF102	A − 6
T901	B − 1
TP01	B − 7
TP02	B − 7
TP03	B − 7
TP04	C − 7
TP11	A − 7
TP12	A − 6
TP13	B − 6
TP14	B − 6
TP16	B − 6
TP21	A − 6
TP53	B − 6
TP1A	A − 6
TP1C	A − 6
TP1E	A − 6
TP1S	A − 6
TP1V	A − 5
TP2A	E − 2
TP2B	A − 2
TP2D	B − 2
TP2H	E − 1
TP2J	A − 5
TP2M	B − 2
TP2S	A − 4
TP5A	C − 6
TP5B	C − 7
TP5C	C − 7
TP5D	E − 1
TP5F	C − 5
TP5X	E − 6
TP5Y	C − 6
TP9A	B − 7
TP9B	B − 6
TP9C	C − 6
TP9Z	E − 1

SYMBOL NO.	ADDRESS
TP2AH	E − 1
TP2C0	C − 3
TP2C1	A − 3
TP2C2	A − 2
TP2C3	A − 2
TP4F1	D − 3
TP4M1	D − 3
TP5J0	D − 2
TP5J1	E − 6
TP5J2	E − 6
TP5J3	E − 7
TP5J4	E − 7
TP5J5	E − 4
TP5J6	C − 4
TP5J7	E − 6
TP5J8	E − 5
TP5K0	D − 4
TP5K3	D − 6
TP5K4	E − 2
TPAGC	B − 7
TPGND	A − 4
TU101	B − 7
VR101	A − 6
VR2A0	A − 3
VR2A1	A − 2
VR2A2	A − 2
VR2A3	A − 2
VR2A5	B − 3
VR5A0	D − 6
X501	B − 4
X551	B − 6
X2A0	A − 3
X5A0	C − 6
X5A1	C − 6

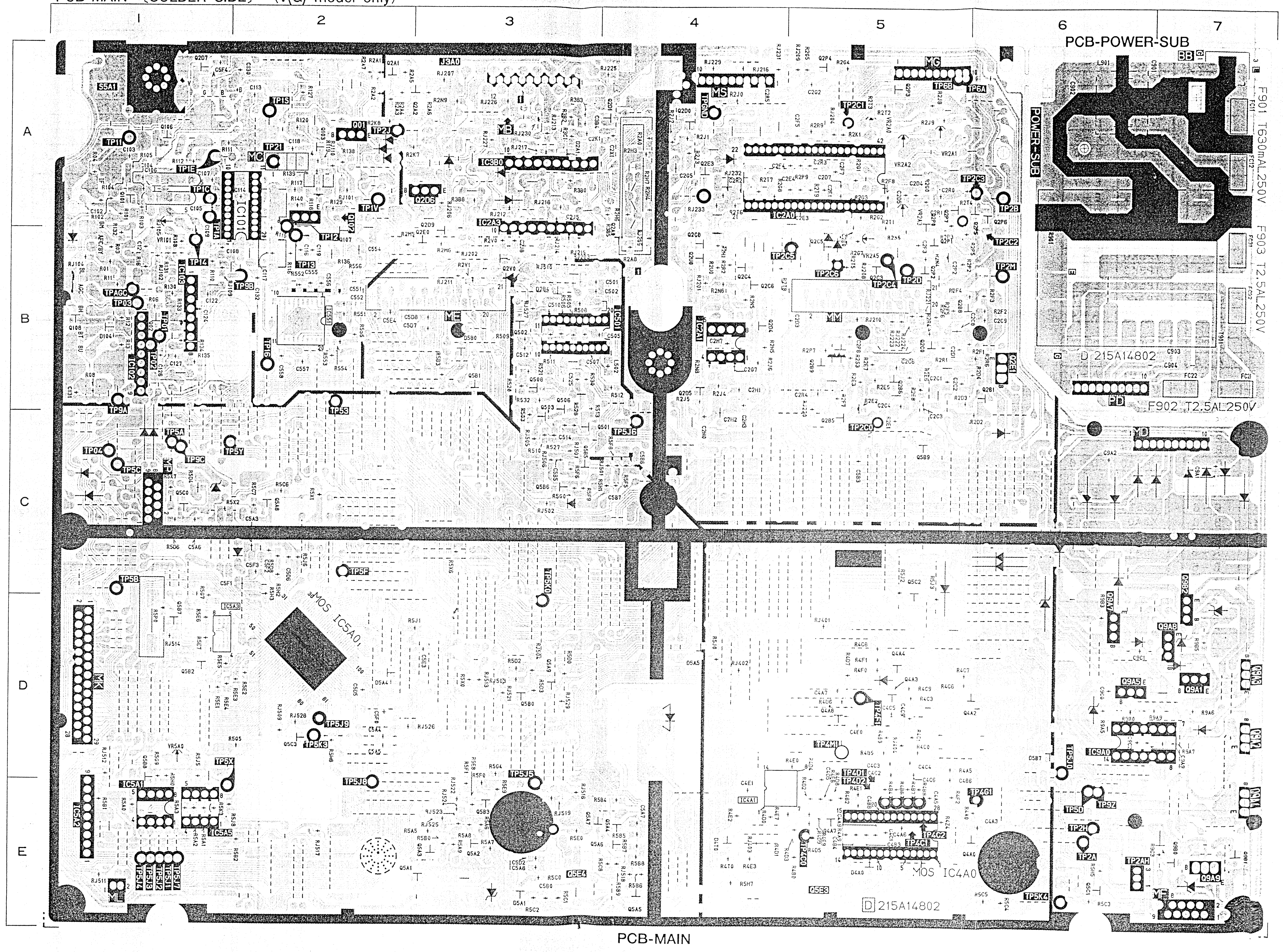
PCB-TIMER/OPE 〔HS-M30 series〕


PCB-OPE
OPE
POWER RED
EJECT
POWER
AUTO SET UP
RENT PB
CH-UP
CH-DN
REC/OTR
PAUSE
FF
REW
ON
D 215B83001
PCB-TIMER
TK
STOP
PLAY
L11
L13
L8
L12
L6
L5
L15
L14
L9
O.K. PROG
TIMER
TN
D 215B83001

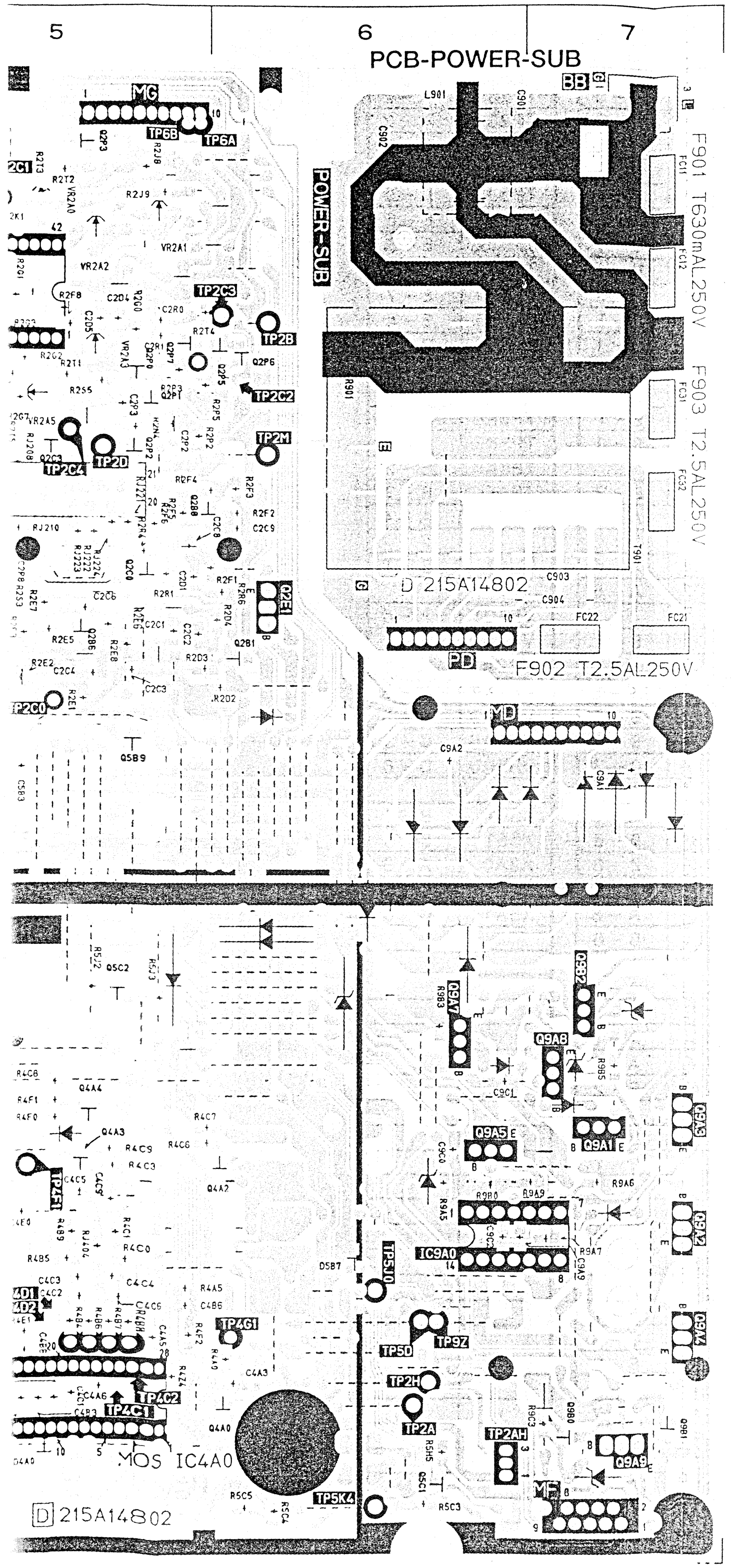
PCB-TIMER/OPE 〔HS-M40 series〕


PCB-OPE
POWER RED
OF
RENT PB
EJECT
POWER
OPE
ON
C 215B83101
PCB-TIMER
TK
PLAY
L11
STOP
L13
PAUSE
AUTO SET UP
REC/OTR
O.K. PROG
L14
L8
L5
L6
L7
L15
L9
L12
A-IN
V-IN
EARTH
TIMER
TN
C 215B83101

PCB-MAIN 〔SOLDER SIDE〕 (V(G) model only)


1
2
3
4
5
6
7
A
B
C
D
E
PCB-POWER-SUB
POWER-SUB
F901 T630mAL250V
F903 T2.5AL250V
F902 T2.5AL250V
D 215A14802
MOS IC5A01
MOS IC4A0
IC101
IC102
IC103
IC2A0
IC2A1
IC2A3
IC3B0
IC501
IC551
IC5A1
IC5A2
IC5A3
IC5A5
IC4A1
IC9A0
PD
MD
MK
ML
MF
MG
MS
MB
MC
MM
ME
MP
BB
PCB-MAIN

PCB-
SYMB NO
C12
C10
C10
C10
C10
C10
C10
C10
C10
C11
C11
C11
C11
C11
C11
C12
C12
C12
C12
C13
C13
C13
C50
C50
C50
C50
C51
C51
C51
C52
C55
C55
C55
C55
C55
C55
C55
C90
C90
C90
C90
C2C1
C2C2
C2C3
C2C4
C2C6
C2C8
C2C9
C2D1
C2D3
C2D4
C2D5
C2D7
C2E0
C2E1
C2E3
C2E4
C2F4
C2F5
C2F7



PCB-MAIN 〔SOLDER SIDE〕

SYMBOL NO.	ADDRESS
C12	B – 1
C102	A – 1
C103	A – 1
C104	A – 1
C105	A – 1
C106	A – 1
C107	A – 1
C108	B – 1
C109	A – 1
C113	A – 2
C114	A – 2
C116	B – 2
C117	B – 2
C118	A – 2
C119	B – 2
C122	B – 1
C124	B – 1
C126	B – 1
C127	B – 1
C130	A – 2
C131	B – 1
C132	B – 2
C501	B – 3
C502	B – 3
C505	B – 3
C507	B – 3
C510	B – 3
C512	B – 3
C514	C – 3
C525	B – 3
C551	B – 2
C552	B – 2
C554	B – 2
C555	B – 2
C556	B – 2
C557	B – 2
C558	B – 2
C901	A – 6
C902	A – 6
C903	B – 7
C904	B – 7
C2C1	B – 5
C2C2	B – 5
C2C3	B – 5
C2C4	B – 5
C2C6	B – 5
C2C8	B – 5
C2C9	B – 6
C2D1	B – 5
C2D3	B – 5
C2D4	A – 5
C2D5	A – 5
C2D7	A – 5
C2E0	B – 5
C2E1	A – 5
C2E3	A – 5
C2E4	A – 4
C2F4	A – 4
C2F5	A – 5
C2F7	A – 5

SYMBOL NO.	ADDRESS
C2G2	A – 5
C2G5	A – 4
C2G7	B – 4
C2H0	C – 4
C2H1	B – 4
C2H2	C – 4
C2H3	C – 4
C2H7	B – 4
C2J5	A – 3
C2J8	B – 3
C2K1	A – 3
C2P2	B – 5
C2P3	B – 5
C2P8	B – 5
C2R0	A – 5
C2R1	A – 5
C2R2	A – 4
C2R3	A – 5
C2R4	B – 5
C2R5	A – 4
C2X1	A – 4
C3B4	A – 3
C4A3	E – 6
C4A5	E – 5
C4A6	E – 5
C4A7	D – 5
C4A9	E – 5
C4B3	E – 5
C4B4	E – 5
C4B6	E – 5
C4B8	E – 5
C4C1	E – 5
C4C2	D – 5
C4C3	D – 5
C4C4	D – 5
C4C5	D – 5
C4C6	D – 5
C4C9	D – 5
C4D5	E – 5
C4E0	D – 5
C4E1	E – 4
C5A3	C – 2
C5A4	D – 2
C5A5	D – 2
C5A6	C – 1
C5A7	E – 4
C5A8	E – 3
C5B0	E – 3
C5B3	C – 5
C5B5	C – 3
C5B6	C – 4
C5B7	C – 4
C5D2	E – 3
C5D5	D – 2
C5D6	C – 2
C5D7	B – 2
C5D8	B – 2
C5E3	D – 3
C5E4	B – 2
C5F0	D – 2

SYMBOL NO.	ADDRESS
C5F1	C – 2
C5F2	C – 2
C5F3	C – 2
C5F4	A – 1
C9A1	C – 7
C9A2	C – 6
C9A9	D – 7
C9C0	D – 6
C9C1	D – 6
C9C2	D – 6
D104	B – 1
D2A1	A – 3
D2B4	B – 3
D4A0	E – 5
D4T0	E – 4
D5A1	E – 3
D5A4	D – 2
D5A5	D – 4
D5B0	B – 3
D5B7	D – 6
F901	A – 7
F902	B – 7
F903	B – 7
FC11	A – 7
FC12	A – 7
FC21	B – 7
FC22	B – 7
FC31	B – 7
FC32	B – 7
IC101	A – 2
IC102	B – 1
IC103	B – 1
IC501	B – 3
IC551	B – 2
IC2A0	A – 5
IC2A1	B – 4
IC2A3	A – 3
IC3B0	A – 3
IC4A0	E – 5
IC4A1	E – 4
IC5A0	D – 2
IC5A1	E – 1
IC5A2	E – 1
IC5A3	D – 1
IC5A5	E – 1
IC9A0	D – 6
J3A0	A – 3
L502	B – 4
L901	A – 6
Q01	A – 2
Q02	B – 1
Q101	A – 1
Q102	A – 2

SYMBOL NO.	ADDRESS
Q103	A – 2
Q106	A – 1
Q107	B – 2
Q108	B – 1
Q501	C – 3
Q502	B – 3
Q503	B – 3
Q506	B – 3
Q508	B – 3
Q2A0	B – 4
Q2A1	A – 2
Q2A2	A – 2
Q2B1	B – 6
Q2B5	C – 5
Q2B6	B – 5
Q2B8	B – 5
Q2B9	B – 5
Q2C0	B – 5
Q2C3	B – 5
Q2C4	B – 4
Q2C5	B – 5
Q2C6	B – 4
Q2C8	B – 4
Q2D0	A – 4
Q2D1	A – 4
Q2D4	B – 4
Q2D5	B – 4
Q2D6	A – 3
Q2D7	A – 1
Q2D9	B – 3
Q2E0	B – 3
Q2E1	B – 6
Q2E3	A – 4
Q2P0	A – 5
Q2P1	B – 5
Q2P2	B – 5
Q2P3	A – 5
Q2P4	A – 5
Q2P5	A – 5
Q2P6	A – 6
Q2P7	A – 5
Q2U0	B – 4
Q2V0	B – 3
Q4A0	E – 6
Q4A2	D – 5
Q4A3	D – 5
Q4A4	D – 5
Q4A7	E – 5
Q4A8	D – 5
Q5A1	E – 3
Q5A2	E – 3
Q5A3	E – 3
Q5A4	E – 4
Q5A5	E – 4
Q5A6	E – 4
Q5A7	E – 3
Q5A8	C – 2
Q5A9	D – 3
Q5B0	D – 3
Q5B1	B – 3

SYMBOL NO.	ADDRESS
Q5B2	D – 1
Q5B3	E – 3
Q5B5	C – 3
Q5B6	C – 3
Q5B7	D – 1
Q5B8	E – 1
Q5B9	C – 5
Q5C0	C – 1
Q5C1	E – 6
Q5C2	C – 5
Q5C3	D – 2
Q5E3	E – 5
Q5E4	E – 3
Q9A1	D – 7
Q9A2	D – 7
Q9A3	D – 7
Q9A4	E – 7
Q9A5	D – 6
Q9A7	D – 6
Q9A8	D – 7
Q9A9	E – 7
Q9B0	E – 7
Q9B1	E – 7
Q9B2	C – 7
R01	B – 1
R03	B – 1
R04	A – 1
R06	B – 1
R08	B – 1
R11	B – 1
R12	B – 1
R13	B – 1
R16	B – 1
R101	A – 1
R102	A – 1
R103	A – 1
R104	A – 1
R105	A – 1
R108	B – 1
R110	B – 1
R111	A – 1
R112	A – 1
R115	B – 2
R116	B – 2
R117	A – 2
R118	A – 2
R120	A – 2
R127	A – 2
R129	A – 2
R130	B – 1
R131	B – 1
R132	B – 1
R133	B – 1
R134	B – 1
R135	B – 1
R136	B – 2
R138	A – 2
R139	A – 2
R140	A – 2

SYMBOL NO.	ADDRESS
R503	C – 3
R505	B – 3
R506	B – 3
R508	B – 3
R509	B – 3
R510	C – 3
R511	B – 3
R512	B – 4
R513	B – 3
R520	B – 3
R521	B – 3
R527	C – 3
R528	C – 3
R530	B – 3
R532	B – 3
R551	B – 2
R552	B – 2
R553	B – 2
R555	B – 2
R556	B – 2
R901	B – 6
R2A0	A – 4
R2A1	A – 2
R2A2	A – 2
R2A3	A – 2
R2A4	A – 2
R2A5	A – 2
R2A6	A – 3
R2A7	A – 2
R2A8	B – 4
R2D2	C – 5
R2D3	B – 5
R2D4	B – 6
R2E1	C – 5
R2E2	B – 5
R2E3	B – 5
R2E5	B – 5
R2E6	B – 5
R2E7	B – 5
R2E8	B – 5
R2F1	B – 6
R2F2	B – 6
R2F3	B – 6
R2F4	B – 5
R2F5	B – 5
R2F6	B – 5
R2F7	B – 5
R2F8	A – 5
R2G0	A – 5
R2G1	A – 5
R2G2	A – 5
R2G3	A – 5
R2G4	A – 5
R2G5	A – 5
R2G7	B – 5
R2G8	A – 4
R2H1	B – 4
R2H3	A – 4
R2H4	A – 4
R2H5	B – 4

SYMBOL NO.	ADDRESS
R2H6	A – 4
R2H7	A – 4
R2J0	A – 4
R2J1	A – 4
R2J2	A – 4
R2J3	A – 4
R2J4	B – 4
R2J5	B – 4
R2J6	B – 4
R2J8	A – 5
R2J9	A – 5
R2K1	A – 5
R2K7	A – 2
R2K8	A – 2
R2M5	B – 2
R2M6	B – 3
R2N4	B – 5
R2N5	B – 4
R2N6	B – 4
R2N8	B – 4
R2N9	A – 3
R2P2	B – 5
R2P3	B – 5
R2P5	B – 5
R2P7	B – 5
R2P9	A – 5
R2R1	B – 5
R2R2	B – 4
R2R4	B – 5
R2R6	B – 6
R2R9	A – 5
R2S3	B – 5
R2S5	B – 5
R2T1	A – 5
R2T2	A – 5
R2T3	A – 5
R2T4	A – 5
R2T5	B – 5
R2T6	A – 4
R2T7	A – 4
R2T8	B – 4
R2T9	A – 5
R2U0	B – 4
R2V0	B – 3
R2V1	B – 3
R3B0	A – 3
R3B2	A – 3
R3B3	A – 3
R3B5	A – 4
R3B8	A – 3
R3C1	A – 3
R4A0	E – 6
R4A5	D – 5
R4A9	E – 5
R4B0	E – 5
R4B2	E – 5
R4B4	E – 5
R4B5	D – 5
R4B6	E – 5
R4B7	E – 5

SYMBOL NO.	ADDRESS
R4B8	E – 5
R4B9	D – 5
R4C0	D – 5
R4C1	D – 5
R4C3	D – 5
R4C6	D – 5
R4C7	D – 5
R4C8	D – 5
R4C9	D – 5
R4D0	E – 4
R4D1	E – 4
R4D2	E – 5
R4D3	E – 5
R4D4	D – 5
R4D5	E – 5
R4D6	D – 5
R4D7	D – 5
R4D8	E – 5
R4D9	E – 5
R4E0	D – 5
R4E1	E – 5
R4E2	E – 4
R4E3	E – 4
R4E6	E – 5
R4E7	E – 4
R4E9	E – 5
R4F0	D – 5
R4F1	D – 5
R4F2	E – 5
R4T0	E – 4
R4Z4	E – 5
R5A0	E – 1
R5A1	E – 1
R5A2	E – 1
R5A3	E – 1
R5A5	E – 3
R5A6	E – 3
R5A7	E – 3
R5A8	E – 3
R5A9	E – 3
R5B0	E – 3
R5B1	E – 1
R5B2	E – 2
R5B3	B – 3
R5B4	E – 4
R5B5	E – 4
R5B6	E – 4
R5B7	E – 4
R5B8	E – 4
R5B9	E – 4
R5C0	E – 3
R5C1	E – 3
R5C2	E – 3
R5C3	E – 6
R5C4	E – 6
R5C5	E – 6
R5C6	C – 2
R5C7	C – 2
R5C8	E – 4
R5D0	D – 3

SYMBOL NO.
R5D2
R5D3
R5D4
R5D6
R5D8
R5E0
R5E1
R5E2
R5E3
R5E4
R5E5
R5E6
R5E7
R5E8
R5E9
R5F0
R5F1
R5F5
R5F6
R5F8
R5F9
R5G0
R5G4
R5G5
R5G7
R5G9
R5H0
R5H1
R5H2
R5H3
R5H5
R5H7
R5H8
R5J0
R5J1
R5J2
R5J3
R5J5
R5J6
R5J8
R5K3
R5P0
R5X0
R5X1
R5X2
R5X6
R5X7
R9A5
R9A6
R9A6
R9A7
R9A9
R9B0
R9B3
R9B5
R9C3
RJ101
RJ102
RJ104

ADDRESS
C – 2
C – 2
C – 2
A – 1
C – 7
C – 6
D – 7
D – 6
D – 6
D – 6
B – 1
A – 3
B – 3
E – 5
E – 4
E – 3
D – 2
D – 4
B – 3
D – 6
A [illegible]
B – 7
B – 7
A – 7
A – 7
B – 7
B – 7
B – 7
B – 7
A – 2
B – 1
B – 1
B – 3
B – 2
A – 5
B – 4
A – 3
A – 3
E [illegible]
E – 4
D – 2
E – 1
E – 1
D – 1
E – 1
D – 6
A – 3
B – 4
A – 6
A – 2
B – 1
A – 1
A – 2

SYMBOL NO.	ADDRESS
Q103	A – 2
Q106	A – 1
Q107	B – 2
Q108	B – 1
Q501	C – 3
Q502	B – 3
Q503	B – 3
Q506	B – 3
Q508	B – 3
Q2A0	B – 4
Q2A1	A – 2
Q2A2	A – 2
Q2B1	B – 6
Q2B5	C – 5
Q2B6	B – 5
Q2B8	B – 5
Q2B9	B – 5
Q2C0	B – 5
Q2C3	B – 5
Q2C4	B – 4
Q2C5	B – 5
Q2C6	B – 4
Q2C8	B – 4
Q2D0	A – 4
Q2D1	A – 4
Q2D4	B – 4
Q2D5	B – 4
Q2D6	A – 3
Q2D7	A – 1
Q2D9	B – 3
Q2E0	B – 3
Q2E1	B – 6
Q2E3	A – 4
Q2P0	A – 5
Q2P1	B – 5
Q2P2	B – 5
Q2P3	A – 5
Q2P4	A – 5
Q2P5	A – 5
Q2P6	A – 6
Q2P7	A – 5
Q2U0	B – 4
Q2V0	B – 3
Q4A0	E – 6
Q4A2	D – 5
Q4A3	D – 5
Q4A4	D – 5
Q4A7	E – 5
Q4A8	D – 5
Q5A1	E – 3
Q5A2	E – 3
Q5A3	E – 3
Q5A4	E – 4
Q5A5	E – 4
Q5A6	E – 4
Q5A7	E – 3
Q5A8	C – 2
Q5A9	D – 3
Q5B0	D – 3
Q5B1	B – 3

SYMBOL NO.	ADDRESS
Q5B2	D – 1
Q5B3	E – 3
Q5B5	C – 3
Q5B6	C – 3
Q5B7	D – 1
Q5B8	E – 1
Q5B9	C – 5
Q5C0	C – 1
Q5C1	E – 6
Q5C2	C – 5
Q5C3	D – 2
Q5E3	E – 5
Q5E4	E – 3
Q9A1	D – 7
Q9A2	D – 7
Q9A3	D – 7
Q9A4	E – 7
Q9A5	D – 6
Q9A7	D – 6
Q9A8	D – 7
Q9A9	E – 7
Q9B0	E – 7
Q9B1	E – 7
Q9B2	C – 7
R01	B – 1
R03	B – 1
R04	A – 1
R06	B – 1
R08	B – 1
R11	B – 1
R12	B – 1
R13	B – 1
R16	B – 1
R101	A – 1
R102	A – 1
R103	A – 1
R104	A – 1
R105	A – 1
R108	B – 1
R110	B – 1
R111	A – 1
R112	A – 1
R115	B – 2
R116	B – 2
R117	A – 2
R118	A – 2
R120	A – 2
R127	A – 2
R129	A – 2
R130	B – 1
R131	B – 1
R132	B – 1
R133	B – 1
R134	B – 1
R135	B – 1
R136	B – 2
R138	A – 2
R139	A – 2
R140	A – 2

SYMBOL NO.	ADDRESS
R503	C – 3
R505	B – 3
R506	B – 3
R508	B – 3
R509	B – 3
R510	C – 3
R511	B – 3
R512	B – 4
R513	B – 3
R520	B – 3
R521	B – 3
R527	C – 3
R528	C – 3
R530	B – 3
R532	B – 3
R551	B – 2
R552	B – 2
R553	B – 2
R555	B – 2
R556	B – 2
R901	B – 6
R2A0	A – 4
R2A1	A – 2
R2A2	A – 2
R2A3	A – 2
R2A4	A – 2
R2A5	A – 2
R2A6	A – 3
R2A7	A – 2
R2A8	B – 4
R2D2	C – 5
R2D3	B – 5
R2D4	B – 6
R2E1	C – 5
R2E2	B – 5
R2E3	B – 5
R2E5	B – 5
R2E6	B – 5
R2E7	B – 5
R2E8	B – 5
R2F1	B – 6
R2F2	B – 6
R2F3	B – 6
R2F4	B – 5
R2F5	B – 5
R2F6	B – 5
R2F7	B – 5
R2F8	A – 5
R2G0	A – 5
R2G1	A – 5
R2G2	A – 5
R2G3	A – 5
R2G4	A – 5
R2G5	A – 5
R2G7	B – 5
R2G8	A – 4
R2H1	B – 4
R2H3	A – 4
R2H4	A – 4
R2H5	B – 4

SYMBOL NO.	ADDRESS
R2H6	A – 4
R2H7	A – 4
R2J0	A – 4
R2J1	A – 4
R2J2	A – 4
R2J3	A – 4
R2J4	B – 4
R2J5	B – 4
R2J6	B – 4
R2J8	A – 5
R2J9	A – 5
R2K1	A – 5
R2K7	A – 2
R2K8	A – 2
R2M5	B – 2
R2M6	B – 3
R2N4	B – 5
R2N5	B – 4
R2N6	B – 4
R2N8	B – 4
R2N9	A – 3
R2P2	B – 5
R2P3	B – 5
R2P5	B – 5
R2P7	B – 5
R2P9	A – 5
R2R1	B – 5
R2R2	B – 4
R2R4	B – 5
R2R6	B – 6
R2R9	A – 5
R2S3	B – 5
R2S5	B – 5
R2T1	A – 5
R2T2	A – 5
R2T3	A – 5
R2T4	A – 5
R2T5	B – 5
R2T6	A – 4
R2T7	A – 4
R2T8	B – 4
R2T9	A – 5
R2U0	B – 4
R2V0	B – 3
R2V1	B – 3
R3B0	A – 3
R3B2	A – 3
R3B3	A – 3
R3B5	A – 4
R3B8	A – 3
R3C1	A – 3
R4A0	E – 6
R4A5	D – 5
R4A9	E – 5
R4B0	E – 5
R4B2	E – 5
R4B4	E – 5
R4B5	D – 5
R4B6	E – 5
R4B7	E – 5

SYMBOL NO.	ADDRESS
R4B8	E – 5
R4B9	D – 5
R4C0	D – 5
R4C1	D – 5
R4C3	D – 5
R4C6	D – 5
R4C7	D – 5
R4C8	D – 5
R4C9	D – 5
R4D0	E – 4
R4D1	E – 4
R4D2	E – 5
R4D3	E – 5
R4D4	D – 5
R4D5	E – 5
R4D6	D – 5
R4D7	D – 5
R4D8	E – 5
R4D9	E – 5
R4E0	D – 5
R4E1	E – 5
R4E2	E – 4
R4E3	E – 4
R4E6	E – 5
R4E7	E – 4
R4E9	E – 5
R4F0	D – 5
R4F1	D – 5
R4F2	E – 5
R4T0	E – 4
R4Z4	E – 5
R5A0	E – 1
R5A1	E – 1
R5A2	E – 1
R5A3	E – 1
R5A5	E – 3
R5A6	E – 3
R5A7	E – 3
R5A8	E – 3
R5A9	E – 3
R5B0	E – 3
R5B1	E – 1
R5B2	E – 2
R5B3	B – 3
R5B4	E – 4
R5B5	E – 4
R5B6	E – 4
R5B7	E – 4
R5B8	E – 4
R5B9	E – 4
R5C0	E – 3
R5C1	E – 3
R5C2	E – 3
R5C3	E – 6
R5C4	E – 6
R5C5	E – 6
R5C6	C – 2
R5C7	C – 2
R5C8	E – 4
R5D0	D – 3

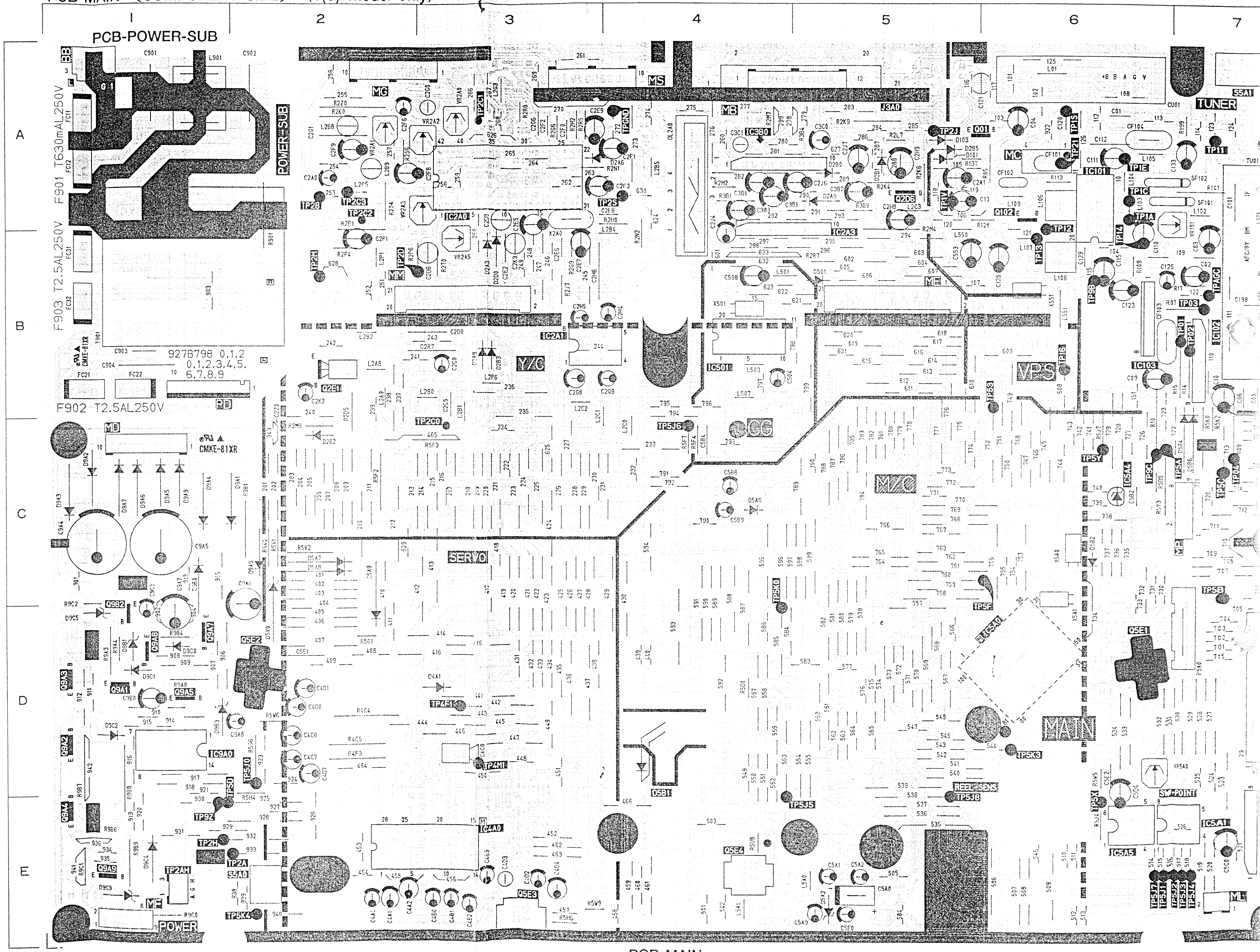
SYMBOL NO.	ADDRESS
R5D2	D – 3
R5D3	D – 3
R5D4	C – 1
R5D6	C – 1
R5D8	C – 2
R5E0	E – 3
R5E1	D – 1
R5E2	D – 2
R5E3	D – 2
R5E4	D – 2
R5E5	D – 1
R5E6	D – 1
R5E7	D – 1
R5E8	E – 3
R5E9	E – 3
R5F0	E – 3
R5F1	E – 3
R5F5	C – 4
R5F6	C – 3
R5F8	C – 4
R5F9	C – 3
R5G0	C – 3
R5G4	D – 3
R5G5	D – 2
R5G7	D – 1
R5G9	D – 1
R5H0	E – 1
R5H1	C – 4
R5H2	C – 2
R5H3	D – 2
R5H5	E – 6
R5H7	E – 4
R5H8	D – 2
R5J0	D – 4
R5J1	D – 3
R5J2	C – 5
R5J3	C – 5
R5J5	D – 1
R5J6	C – 2
R5J8	E – 2
R5K3	E – 1
R5P0	D – 1
R5X0	D – 3
R5X1	C – 2
R5X2	C – 2
R5X6	C – 3
R5X7	C – 1
R9A5	D – 6
R9A6	D – 7
R9A6	D – 7
R9A7	D – 7
R9A9	D – 7
R9B0	D – 6
R9B3	D – 6
R9B5	D – 7
R9C3	E – 7
RJ101	A – 2
RJ102	B – 1
RJ104	B – 1

SYMBOL NO.	ADDRESS
RJ105	A – 1
RJ109	B – 1
RJ110	A – 2
RJ119	A – 2
RJ201	B – 4
RJ202	B – 3
RJ203	B – 3
RJ204	A – 5
RJ205	B – 4
RJ206	A – 3
RJ207	A – 3
RJ208	B – 5
RJ209	A – 5
RJ210	B – 5
RJ211	B – 3
RJ212	A – 3
RJ213	A – 3
RJ214	B – 3
RJ215	B – 3
RJ216	A – 4
RJ217	A – 3
RJ218	A – 3
RJ220	B – 5
RJ221	B – 5
RJ222	B – 5
RJ223	B – 5
RJ224	B – 5
RJ225	A – 4
RJ226	A – 3
RJ227	A – 3
RJ229	A – 4
RJ230	A – 3
RJ231	A – 4
RJ232	A – 4
RJ233	A – 4
RJ401	D – 5
RJ402	D – 4
RJ403	E – 4
RJ404	D – 5
RJ501	C – 4
RJ502	C – 3
RJ503	D – 3
RJ504	D – 3
RJ505	C – 3
RJ506	C – 3
RJ507	C – 3
RJ509	D – 2
RJ510	B – 3
RJ511	E – 1
RJ512	D – 1
RJ513	D – 3
RJ514	D – 1
RJ516	E – 3
RJ517	E – 2
RJ518	E – 4
RJ519	E – 3
RJ521	D – 3
RJ522	E – 3
RJ523	E – 3
RJ524	E – 3

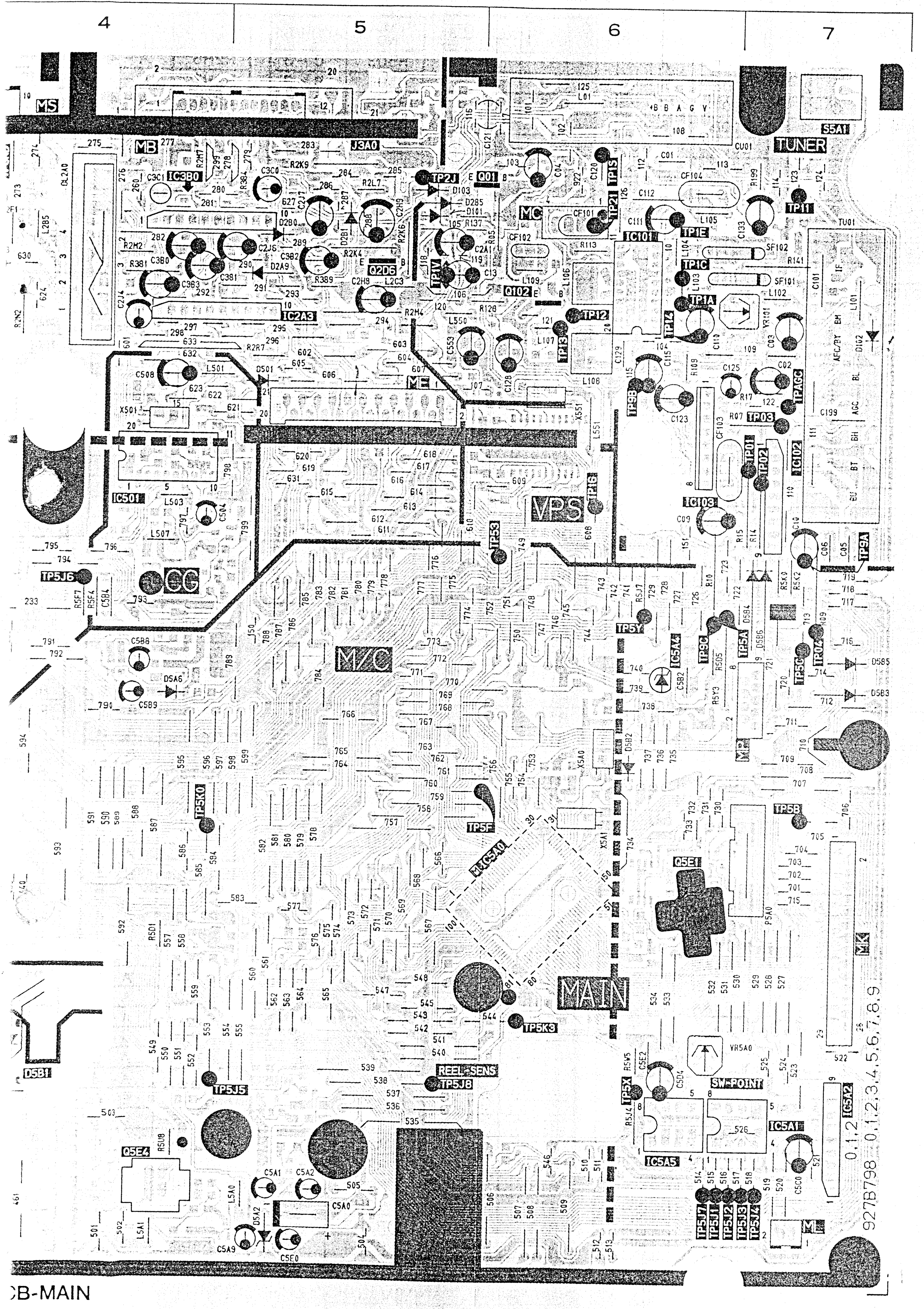
SYMBOL NO.	ADDRESS
RJ525	E – 3
RJ526	D – 3
RJ527	B – 3
RJ528	D – 2
RJ529	D – 3
S5A1	A – 1
T901	B – 6
TP01	B – 1
TP02	B – 1
TP03	B – 1
TP04	C – 1
TP11	A – 1
TP12	A – 2
TP13	B – 2
TP14	B – 1
TP16	B – 2
TP21	A – 2
TP53	B – 2
TP1A	A – 1
TP1C	A – 1
TP1E	A – 1
TP1S	A – 2
TP1V	A – 2
TP2A	E – 6
TP2B	A – 6
TP2D	B – 5
TP2H	E – 6
TP2J	A – 2
TP2M	B – 6
TP5A	C – 1
TP5B	C – 1
TP5C	C – 1
TP5D	E – 6
TP5F	C – 2
TP5X	E – 1
TP5Y	C – 2
TP6A	A – 5
TP6B	A – 5
TP9A	B – 1
TP9B	B – 2
TP9C	C – 1
TP9Z	E – 6
TP2AH	E – 6
TP2C0	C – 5
TP2C1	A – 5
TP2C2	A – 5
TP2C3	A – 5
TP2C4	B – 5
TP2C5	B – 4
TP2C6	B – 5
TP4C0	E – 5
TP4C1	E – 5
TP4C2	E – 5
TP4D1	E – 5
TP4D2	E – 5
TP4F1	D – 5
TP4G1	E – 6

SYMBOL NO.	ADDRESS
TP4M1	D – 5
TP5J0	D – 6
TP5J1	E – 1
TP5J2	E – 1
TP5J3	E – 1
TP5J4	E – 1
TP5J5	E – 3
TP5J6	C – 4
TP5J7	E – 1
TP5J8	E – 2
TP5J9	D – 2
TP5K0	D – 3
TP5K3	D – 2
TP5K4	E – 6
TPAGC	B – 1
TPGND	A – 4
VR101	A – 1
VR2A0	A – 5
VR2A1	A – 5
VR2A2	A – 5
VR2A3	A – 5
VR2A5	B – 5
VR5A0	D – 1

PCB-MAIN 〔COMPONENT SIDE〕 (V(G) model only)


1
2
3
4
5
6
7
A
B
C
D
E
PCB-POWER-SUB
POWER-SUB
F901 T630mAL250V
F903 T2.5AL250V
F902 T2.5AL250V
927B798 0.1.2
0.1.2.3.4.5.
6.7.8.9
CMKE-81XR
MG
MS
MB
J3A0
TUNER
S5A1
IC2A0
IC2A1
IC2A3
IC3B0
IC501
IC101
IC102
IC103
Y/C
VPS
CC
M/C
SERVO
MAIN
IC5A0
IC9A0
IC4A0
IC5A1
IC5A5
Q5E1
Q5E2
Q5E3
Q5E4
Q2E1
D5B1
REEL-SENS
SW-POINT
POWER
TP5J5
TP5J8
TP5K3
TP5K4
TP2AH
TP2H
TP2A
S5A0
PCB-MAIN

HS-M 30V(E) / (EE) / V(G) / (Y) / V(Y)
HS-M 40V(B) / V(E) / (EE) / V(G) / V(IR) / V(Y)


4
5
6
7
MS
MB
J3A0
IC3B0
Q2D6
IC2A3
TP2J
Q01
MC
IC101
TUNER
S5A1
TU01
TP11
TP1E
TP1C
TP1A
TP12
TP13
TP14
Q102
IC501
IC103
IC102
TP01
TP02
TP03
TPAGC
VPS
TP16
TP53
TP9A
TP5J6
CG
M/C
TP5Y
IC5A4
TP9C
TP5A
TP5C
TP5B
MP
TP5K0
TP5F
TP58
Q5E1
IC5A0
MAIN
MK
TP5K3
VR5A0
REEL-SENS
TP5J8
TP5J5
SW-POINT
TP5X
IC5A1
IC5A2
IC5A5
Q5E4
D5B1
927B798 0.1.2 0.1.2.3.4.5.6.7.8.9

CB-MAIN

PCB-MAIN 〔COMPONENT SIDE〕

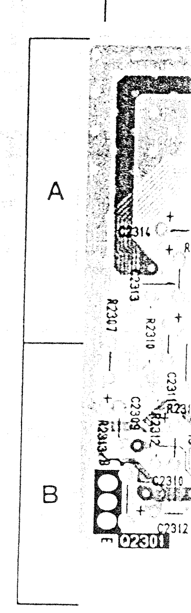
SYMBOL NO.	ADDRESS
CF101	A – 6
CF102	A – 6
CF103	B – 6
CF104	A – 6
CU01	A – 6
D101	A – 5
D102	B – 7
D103	A – 5
D501	B – 5
D2A3	B – 3
D2A6	A – 3
D2A8	B – 3
D2A9	A – 5
D2B0	A – 5
D2B1	A – 5
D2B2	C – 2
D2B3	B – 3
D2B5	A – 5
D2D0	B – 3
D4A1	D – 3
D5A2	E – 5
D5A6	C – 4
D5A7	C – 2
D5A8	C – 2
D5A9	C – 2
D5B1	D – 4
D5B2	C – 6
D5B3	C – 7
D5B4	C – 7
D5B5	C – 7
D5B6	C – 7
D5V0	C – 2
D9A1	C – 1
D9A2	C – 1
D9A3	C – 1
D9A4	C – 1
D9A5	C – 1
D9A6	C – 1
D9A7	C – 1
D9A8	C – 1
D9A9	C – 2
D9B0	C – 1
D9B1	D – 1
D9B3	D – 1
D9C0	D – 1
D9C1	D – 1
D9C2	D – 1
D9C3	E – 1
D9C4	E – 1
D9C5	D – 1
DL2A0	A – 4
F901	A – 1
F902	B – 1
F903	B – 1
FC11	A – 1

SYMBOL NO.	ADDRESS
FC12	A – 1
FC21	B – 1
FC22	B – 1
FC31	B – 1
FC32	B – 1
IC101	A – 6
IC102	B – 7
IC103	B – 6
IC501	B – 4
IC2A0	A – 3
IC2A1	B – 3
IC2A3	A – 4
IC3B0	A – 4
IC4A0	E – 3
IC5A0	D – 6
IC5A1	E – 6
IC5A2	E – 7
IC5A4	C – 6
IC5A5	E – 6
IC9A0	D – 1
J3A0	A – 5
L01	A – 6
L101	A – 7
L102	A – 7
L103	A – 6
L104	A – 6
L105	A – 6
L106	A – 6
L107	B – 6
L108	B – 6
L109	A – 6
L501	B – 4
L503	B – 4
L507	B – 4
L550	B – 5
L551	B – 6
L901	A – 1
L2A8	B – 2
L2A9	B – 2
L2B1	B – 3
L2B2	B – 2
L2B4	B – 4
L2B5	A – 4
L2B8	A – 2
L2B9	A – 2
L2C0	C – 4
L2C1	B – 3
L2C2	B – 3
L2C3	A – 5
L2G3	A – 3
L2P1	B – 2
L2P5	A – 2
L2P6	B – 3
L5A0	E – 5
L5A1	E – 4
Q01	A – 5

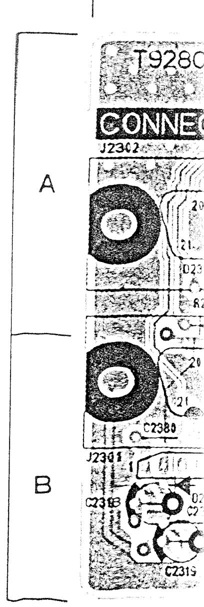
SYMBOL NO.	ADDRESS
Q102	A – 6
Q2D6	A – 5
Q2E1	B – 2
Q5E1	D – 6
Q5E2	D – 2
Q5E3	E – 3
Q5E4	E – 4
Q9A1	D – 1
Q9A2	D – 1
Q9A3	D – 1
Q9A4	E – 1
Q9A5	D – 1
Q9A7	D – 1
Q9A8	D – 1
Q9A9	E – 1
Q9B2	D – 1
S5A0	E – 2
S5A1	A – 7
SF101	A – 6
SF102	A – 6
T901	B – 1
TP01	B – 7
TP02	B – 7
TP03	B – 7
TP04	C – 7
TP11	A – 7
TP12	A – 6
TP13	B – 6
TP14	B – 6
TP16	B – 6
TP21	A – 6
TP53	B – 6
TP1A	A – 6
TP1C	A – 6
TP1E	A – 6
TP1S	A – 6
TP1V	A – 5
TP2A	E – 2
TP2B	A – 2
TP2D	B – 2
TP2H	E,– 1
TP2J	A – 5
TP2S	A – 4
TP5A	C – 6
TP5B	C – 7
TP5C	C – 7
TP5D	E – 1
TP5F	C – 5
TP5X	E – 6
TP5Y	C – 6
TP9A	B – 7
TP9B	B – 6
TP9C	C – 6
TP9Z	E – 1
TP2AH	E – 1
TP2C0	C – 3

SYMBOL NO.	ADDRESS
TP2C1	A – 3
TP2C2	A – 2
TP2C3	A – 2
TP4F1	D – 3
TP4M1	D – 3
TP5J0	D – 2
TP5J1	E – 6
TP5J2	E – 6
TP5J3	E – 7
TP5J4	E – 7
TP5J5	E – 4
TP5J6	C – 4
TP5J7	E – 6
TP5J8	E – 5
TP5K0	C – 4
TP5K3	D – 6
TP5K4	E – 2
TPAGC	B – 7
TPGND	A – 4
TU01	B – 7
VR101	A – 6
VR2A0	A – 3
VR2A1	A – 2
VR2A2	A – 3
VR2A3	A – 3
VR2A5	B – 3
VR5A0	D – 6
X501	B – 4
X551	B – 6
X2A0	A – 3
X5A0	C – 6
X5A1	C – 6

PCB-



PCB-C


T928
CONNE
J2342
A
B
J2301
C2380
C2319

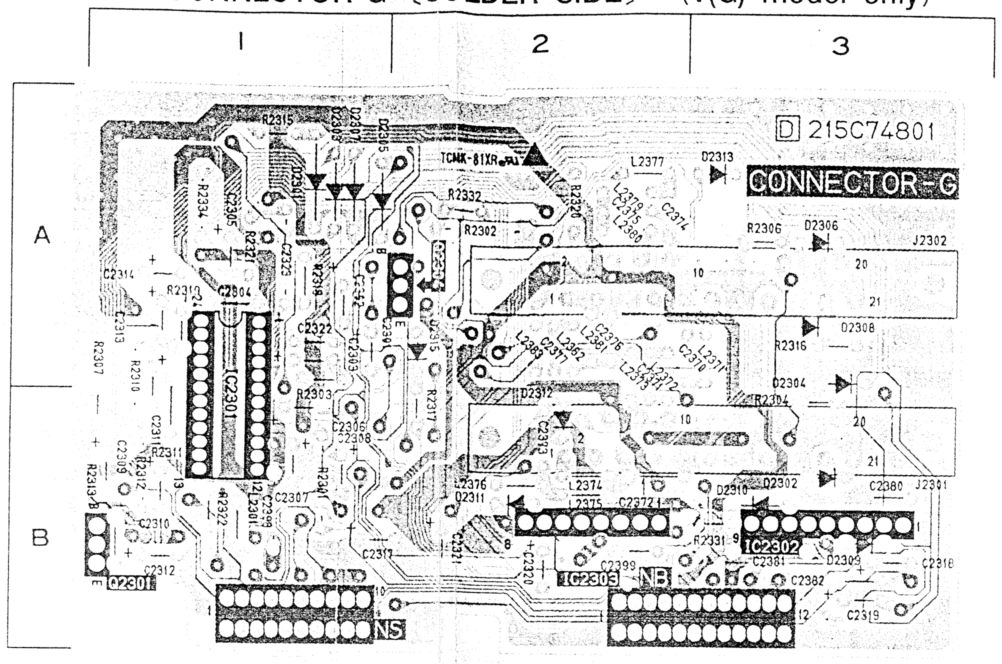
DE〕

ESS
- 1
- 1
- 1
- 1
- 1
- 6
- 7
- 6
4
3
3
4
4
3
6
6
7
6
6
1
5
6
7
7
6
6
6
6
6
6
6
4
4
4
5
6
1
2
2
3
2
4
4
2
2
4
3
3
5
3
2
2
3
5
4
5

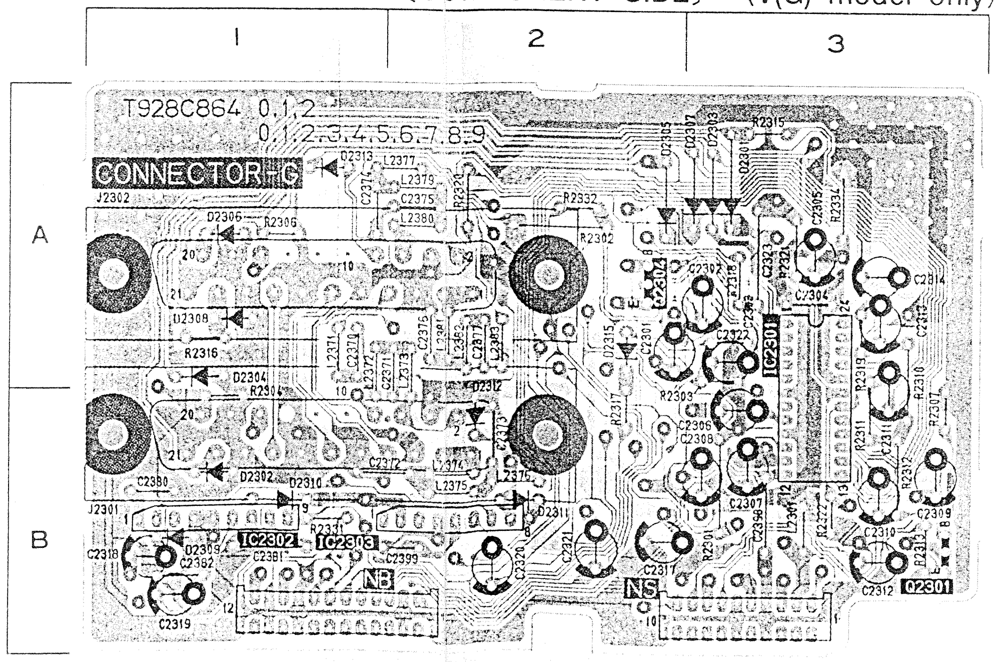
SYMBOL NO.	ADDRESS
Q102	A – 6
Q2D6	A – 5
Q2E1	B – 2
Q5E1	D – 6
Q5E2	D – 2
Q5E3	E – 3
Q5E4	E – 4
Q9A1	D – 1
Q9A2	D – 1
Q9A3	D – 1
Q9A4	E – 1
Q9A5	D – 1
Q9A7	D – 1
Q9A8	D – 1
Q9A9	E – 1
Q9B2	D – 1
S5A0	E – 2
S5A1	A – 7
SF101	A – 6
SF102	A – 6
T901	B – 1
TP01	B – 7
TP02	B – 7
TP03	B – 7
TP04	C – 7
TP11	A – 7
TP12	A – 6
TP13	B – 6
TP14	B – 6
TP16	B – 6
TP21	A – 6
TP53	B – 6
TP1A	A – 6
TP1C	A – 6
TP1E	A – 6
TP1S	A – 6
TP1V	A – 5
TP2A	E – 2
TP2B	A – 2
TP2D	B – 2
TP2H	E – 1
TP2J	A – 5
TP2S	A – 4
TP5A	C – 6
TP5B	C – 7
TP5C	C – 7
TP5D	E – 1
TP5F	C – 5
TP5X	E – 6
TP5Y	C – 6
TP9A	B – 7
TP9B	B – 6
TP9C	C – 6
TP9Z	E – 1
TP2AH	E – 1
TP2CO	C – 3

SYMBOL NO.	ADDRESS
TP2C1	A – 3
TP2C2	A – 2
TP2C3	A – 2
TP4F1	D – 3
TP4M1	D – 3
TP5J0	D – 2
TP5J1	E – 6
TP5J2	E – 6
TP5J3	E – 7
TP5J4	E – 7
TP5J5	E – 4
TP5J6	C – 4
TP5J7	E – 6
TP5J8	E – 5
TP5K0	C – 4
TP5K3	D – 6
TP5K4	E – 2
TPAGC	B – 7
TPGND	A – 4
TU01	B – 7
VR101	A – 6
VR2A0	A – 3
VR2A1	A – 2
VR2A2	A – 3
VR2A3	A – 3
VR2A5	B – 3
VR5A0	D – 6
X501	B – 4
X551	B – 6
X2A0	A – 3
X5A0	C – 6
X5A1	C – 6

PCB-CONNECTOR-G 〔SOLDER SIDE〕 (V(G) model only)



PCB-CONNECTOR-G 〔COMPONENT SIDE〕 (V(G) model only)



PCB-CONNECTOR-G 〔SOLDER SIDE〕

SYMBOL NO.	ADDRESS
D2301	A – 1
D2302	B – 3
D2303	A – 1
D2304	A – 3
D2305	A – 1
D2306	A – 3
D2307	A – 1
D2308	A – 3
D2309	B – 3
D2310	B – 3
D2311	B – 2
D2312	B – 2
D2313	A – 3
D2315	A – 2
IC2301	A – 1
IC2302	B – 3
IC2303	B – 2
J2301	B – 3
J2302	A – 3
L2301	B – 1
L2371	A – 3
L2372	A – 2

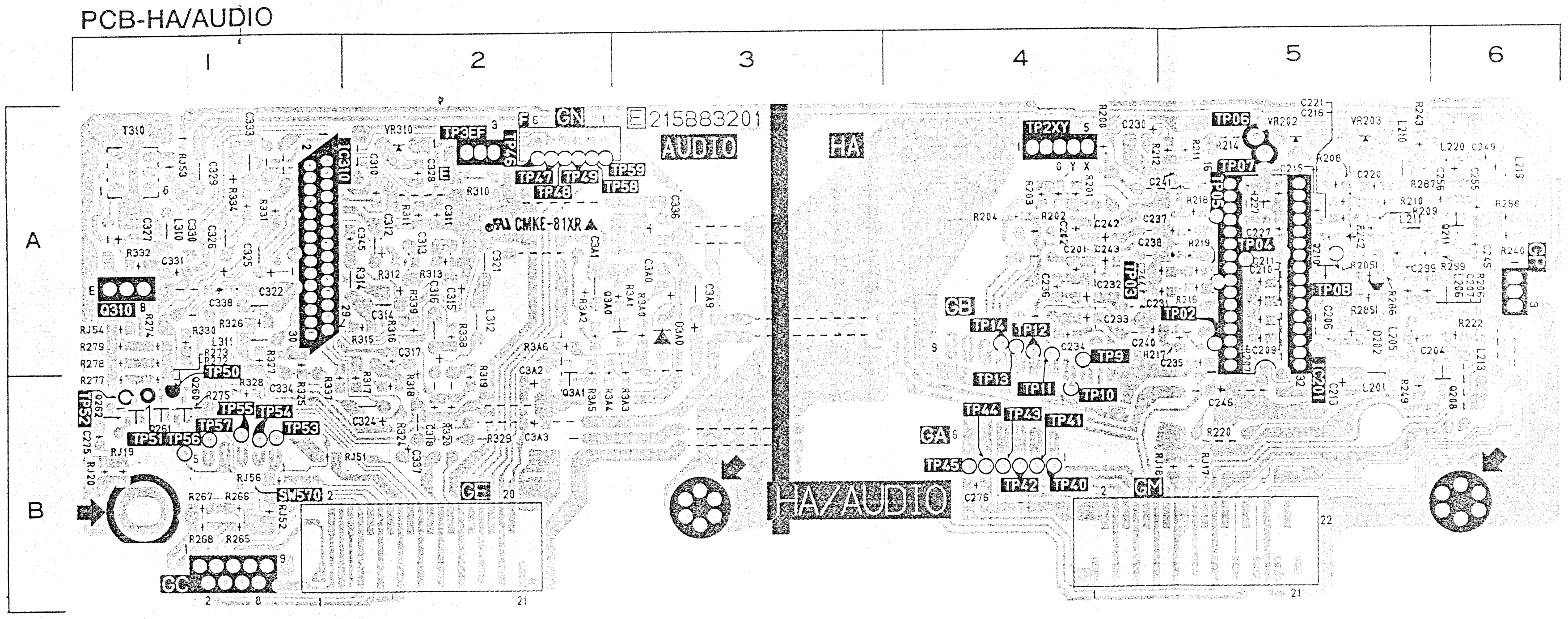
SYMBOL NO.	ADDRESS
L2373	A – 2
L2374	B – 2
L2375	B – 2
L2376	B – 2
L2377	A – 2
L2379	A – 2
L2380	A – 2
L2381	A – 2
L2382	A – 2
L2383	A – 2
Q2301	B – 1
Q2304	A – 2

PCB-CONNECTOR-G 〔COMPONENT SIDE〕

SYMBOL NO.	ADDRESS
D2301	A – 3
D2302	B – 1
D2303	A – 3
D2304	A – 1
D2305	A – 2
D2306	A – 1
D2307	A – 3
D2308	A – 1
D2309	B – 1
D2310	B – 1
D2311	B – 2
D2312	B – 2
D2313	A – 1
D2315	A – 3
IC2301	A – 3
IC2302	B – 1
IC2303	B – 1
J2301	B – 1
J2302	A – 1
L2301	B – 3
L2371	A – 1
L2372	A – 1

SYMBOL NO.	ADDRESS
L2373	A – 2
L2374	B – 2
L2375	B – 2
L2376	B – 2
L2377	A – 2
L2379	A – 2
L2380	A – 2
L2381	A – 2
L2382	A – 2
L2383	A – 2
Q2301	B – 3
Q2304	A – 2

PCB-HA/AUDIO



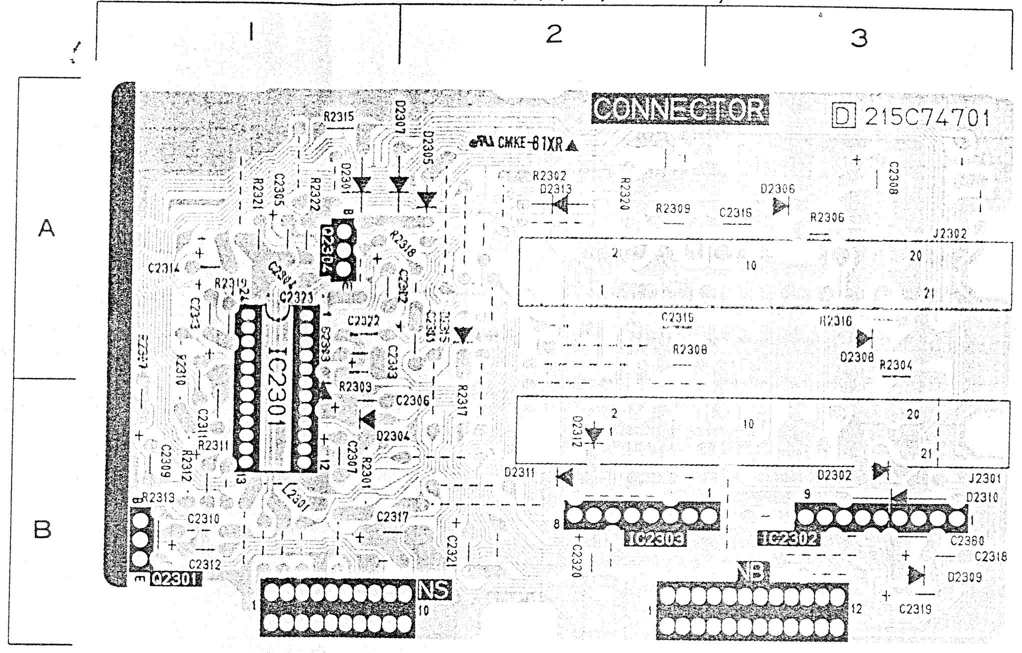
PCB-HA/AUDIO

SYMBOL NO.	ADDRESS
C201	A – 4
C202	A – 4
C204	A – 5
C206	A – 5
C207	A – 6
C209	A – 5
C210	A – 5
C211	A – 5
C213	B – 5
C215	A – 5
C216	A – 5
C220	A – 5
C221	A – 5
C227	A – 5
C230	A – 4
C231	A – 4
C232	A – 4
C233	A – 4
C234	A – 4
C235	A – 5
C236	A – 4
C237	A – 5
C238	A – 5
C240	A – 4
C241	A – 5
C242	A – 4
C243	A – 4
C244	A – 4
C245	A – 6
C248	B – 5
C249	A – 6
C255	A – 6
C256	A – 6
C275	B – 1
C276	B – 4
C299	A – 5
C310	A – 2
C311	A – 2
C312	A – 2
C313	A – 2
C314	A – 2
C315	A – 2
C316	A – 2
C317	A – 2
·C318	B – 2
C321	A – 2
C322	A – 1
C324	B – 2
C325	A – 1
C326	A – 1
C327	A – 1
C328	A – 2
C329	A – 1
C330	A – 1
C331	A – 1
C333	A – 1
C334	B – 1
C336	A – 3
C337	B – 2
C338	A – 1
C345	A – 2
C3A0	A – 3
C3A1	A – 2
C3A2	B – 2
C3A3	B – 2
C3A9	A – 3
D202	A – 5
D3A0	A – 3
IC201	A – 5
IC310	A – 1
L201	B – 5
L205	A – 5
L206	A – 6
L210	A – 5
L211	A – 5
L213	A – 6
L219	A – 6
L220	A – 6
L310	A – 1
L311	A – 1
L312	A – 2
Q208	B – 6
Q210	A – 5
Q211	A – 6
Q260	B – 1
Q261	B – 1
Q262	B – 1
Q310	A – 1
Q3A0	A – 3
Q3A1	B – 2
R200	A – 4
R201	A – 4
R202	A – 4
R203	A – 4
R204	A – 4
R205	A – 5
R206	A – 6
R207	A – 5
R208	A – 5
R209	A – 5
R210	A – 5
R211	A – 5
R212	A – 5
R214	A – 5
R216	A – 5
R217	A – 5
R218	A – 5
R219	A – 5
R220	B – 5
R222	A – 6
R227	A – 5
R240	A – 6
R242	A – 5
R243	A – 6
R249	B – 5
R260	B – 1
R265	B – 1
R266	B – 1
R267	B – 1
R272	A – 1
R273	A – 1
R274	A – 1
R275	B – 1
R277	B – 1
R278	A – 1
R279	A – 1
R285	A – 5
R286	A – 5
R287	A – 5
R288	A – 6
R299	A – 6
R310	A – 2
R311	A – 2
R312	A – 2
R313	A – 2
R314	A – 2
R315	A – 2
R316	A – 2
R317	B – 2
R318	B – 2
R319	B – 2
R320	B – 2
R324	B – 2
R325	B – 1
R326	A – 1
R327	A – 1
R328	B – 1
R329	B – 2
R330	A – 1
R331	A – 1
R332	A – 1
R334	A – 1
R337	B – 1
R338	A – 2
R339	A – 2
R3A0	A – 3
R3A1	A – 3
R3A2	A – 2
R3A3	B – 3
R3A4	B – 3
R3A5	B – 2
R3A6	A – 2
RJ17	B – 5
RJ18	B – 5
RJ19	B – 1
RJ20	B – 1
RJ51	B – 2
RJ52	B – 1
RJ53	A – 1
RJ54	A – 1
RJ56	B – 1
SW570	B – 1
T310	A – 1
TP9	A – 4
TP02	A – 5
TP03	A – 4
TP04	A – 5
TP05	A – 5
TP06	A – 5
TP07	A – 5
TP08	A – 5
TP10	B – 4
TP11	A – 4
TP12	A – 4
TP13	A – 4
TP14	A – 4
TP40	B – 4
TP41	B – 4
TP42	B – 4
TP43	B – 4
TP44	B – 4
TP45	B – 4
TP46	A – 2
TP47	A – 2
TP48	A – 2
TP49	A – 2
TP50	B – 1
TP51	B – 1
TP52	B – 1
TP53	B – 1
TP54	B – 1
TP55	B – 1
TP56	B – 1
TP57	B – 1
TP58	A – 2
TP59	A – 2
TP2XY	A – 4
TP3EF	A – 2
VR202	A – 5
VR203	A – 5
VR310	A – 2

PCB-HA/AUDIO

SYMBOL NO.	ADDRESS
C201	A – 4
C202	A – 4
C204	A – 5
C206	A – 5
C207	A – 6
C209	A – 5
C210	A – 5
C211	A – 5
C213	B – 5
C215	A – 5
C216	A – 5
C220	A – 5
C221	A – 5
C227	A – 5
C230	A – 4
C231	A – 4
C232	A – 4
C233	A – 4
C234	A – 4
C235	A – 5
C236	A – 4
C237	A – 5
C238	A – 5
C240	A – 4
C241	A – 5
C242	A – 4
C243	A – 4
C244	A – 4
C245	A – 6
C248	B – 5
C249	A – 6
C255	A – 6
C256	A – 6
C275	B – 1
C276	B – 4
C299	A – 5
C310	A – 2
C311	A – 2
C312	A – 2
C313	A – 2
C314	A – 2
C315	A – 2
C316	A – 2
C317	A – 2
C318	B – 2
C321	A – 2
C322	A – 1
C324	B – 2
C325	A – 1
C326	A – 1
C327	A – 1
C328	A – 2
C329	A – 1
C330	A – 1
C331	A – 1
C333	A – 1
C334	B – 1
C336	A – 3
C337	B – 2
C338	A – 1
C345	A – 2
C3A0	A – 3
C3A1	A – 2
C3A2	B – 2
C3A3	B – 2
C3A9	A – 3
D202	A – 5
D3A0	A – 3
IC201	A – 5
IC310	A – 1
L201	B – 5
L205	A – 5
L206	A – 6
L210	A – 5
L211	A – 5
L213	A – 6
L219	A – 6
L220	A – 6
L310	A – 1
L311	A – 1
L312	A – 2
Q208	B – 6
Q210	A – 5
Q211	A – 6
Q260	B – 1
Q261	B – 1
Q262	B – 1
Q310	A – 1
Q3A0	A – 3
Q3A1	B – 2
R200	A – 4
R201	A – 4
R202	A – 4
R203	A – 4
R204	A – 4
R205	A – 5
R206	A – 6
R207	A – 5
R208	A – 5
R209	A – 5
R210	A – 5
R211	A – 5
R212	A – 5
R214	A – 5
R216	A – 5
R217	A – 5
R218	A – 5
R219	A – 5
R220	B – 5
R222	A – 6
R227	A – 5
R240	A – 6
R242	A – 5
R243	A – 6
R249	B – 5
R260	B – 1
R265	B – 1
R266	B – 1
R267	B – 1
R272	A – 1
R273	A – 1
R274	A – 1
R275	B – 1
R277	B – 1
R278	A – 1
R279	A – 1
R285	A – 5
R286	A – 5
R287	A – 5
R288	A – 6
R299	A – 6
R310	A – 2
R311	A – 2
R312	A – 2
R313	A – 2
R314	A – 2
R315	A – 2
R316	A – 2
R317	B – 2
R318	B – 2
R319	B – 2
R320	B – 2
R324	B – 2
R325	B – 1
R326	A – 1
R327	A – 1
R328	B – 1
R329	B – 2
R330	A – 1
R331	A – 1
R332	A – 1
R334	A – 1
R337	B – 1
R338	A – 2
R339	A – 2
R3A0	A – 3
R3A1	A – 3
R3A2	A – 2
R3A3	B – 3
R3A4	B – 3
R3A5	B – 2
R3A6	A – 2
RJ17	B – 5
RJ18	B – 5
RJ19	B – 1
RJ20	B – 1
RJ51	B – 2
RJ52	B – 1
RJ53	A – 1
RJ54	A – 1
RJ56	B – 1
SW570	B – 1
T310	A – 1
TP9	A – 4
TP02	A – 5
TP03	A – 4
TP04	A – 5
TP05	A – 5
TP06	A – 5
TP07	A – 5
TP08	A – 5
TP10	B – 4
TP11	A – 4
TP12	A – 4
TP13	A – 4
TP14	A – 4
TP40	B – 4
TP41	B – 4
TP42	B – 4
TP43	B – 4
TP44	B – 4
TP45	B – 4
TP46	A – 2
TP47	A – 2
TP48	A – 2
TP49	A – 2
TP50	B – 1
TP51	B – 1
TP52	B – 1
TP53	B – 1
TP54	B – 1
TP55	B – 1
TP56	B – 1
TP57	B – 1
TP58	A – 2
TP59	A – 2
TP2XY	A – 4
TP3EF	A – 2
VR202	A – 5
VR203	A – 5
VR310	A – 2

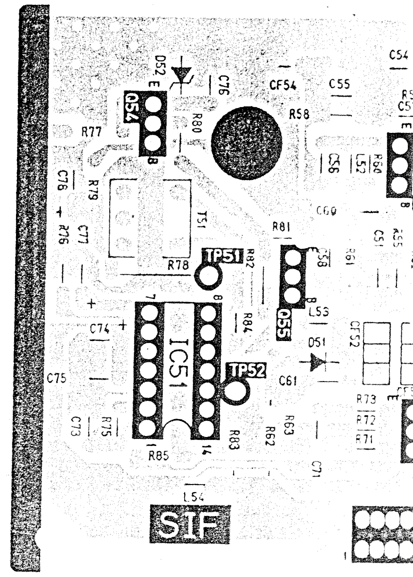
PCB-CONNECTOR (Except V(G),(EE) models)



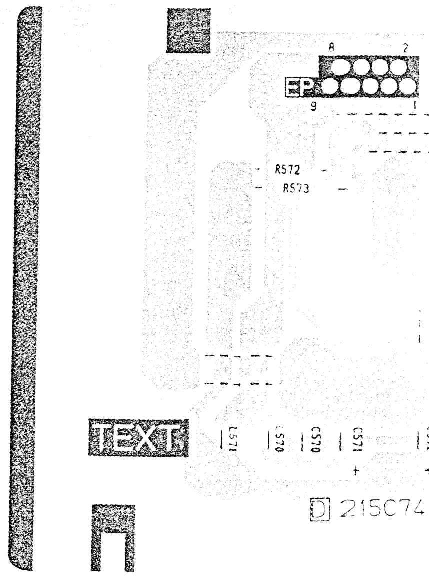
PCB-CONNECTOR

SYMBOL NO.	ADDRESS
D2301	A – 1
D2302	B – 3
D2303	B – 1
D2304	B – 1
D2305	A – 2
D2306	A – 3
D2307	A – 1
D2308	A – 3
D2309	B – 3
D2310	B – 3
D2311	B – 2
D2312	B – 2
D2313	A – 2
D2315	A – 2
IC2301	A – 1
IC2302	B – 3
IC2303	B – 2
J2301	B – 3
J2302	A – 3
L2301	B – 1
Q2301	B – 1
Q2304	A – 1

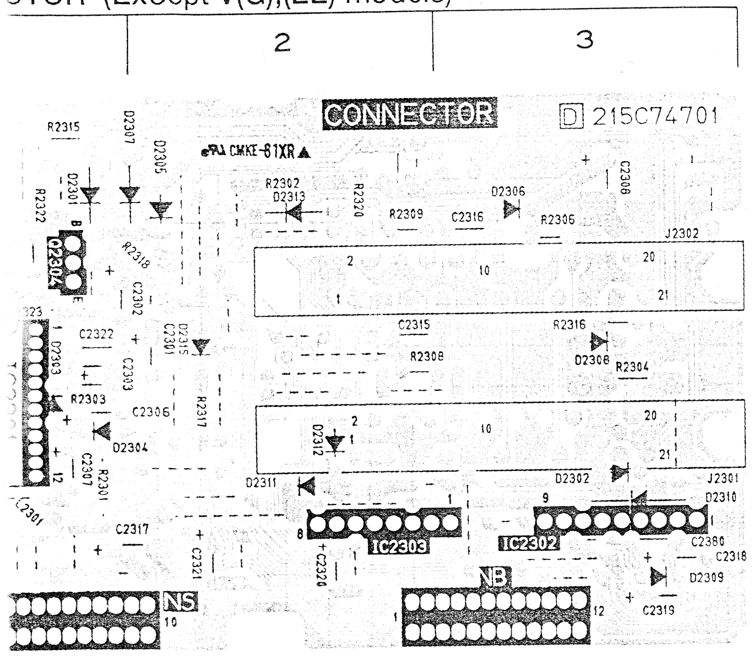
PCB-SIF ((EE) model only)



PCB-TEXT (V(B) model



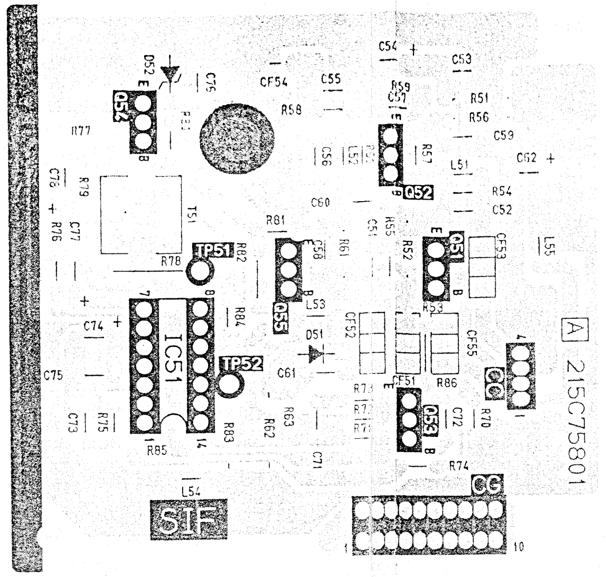
CTOR (Except V(G),(EE) models)


2
3
CONNECTOR
D 215C74701
CMKE-81XR
IC2303
IC2302
NS
NB
J2301
J2302

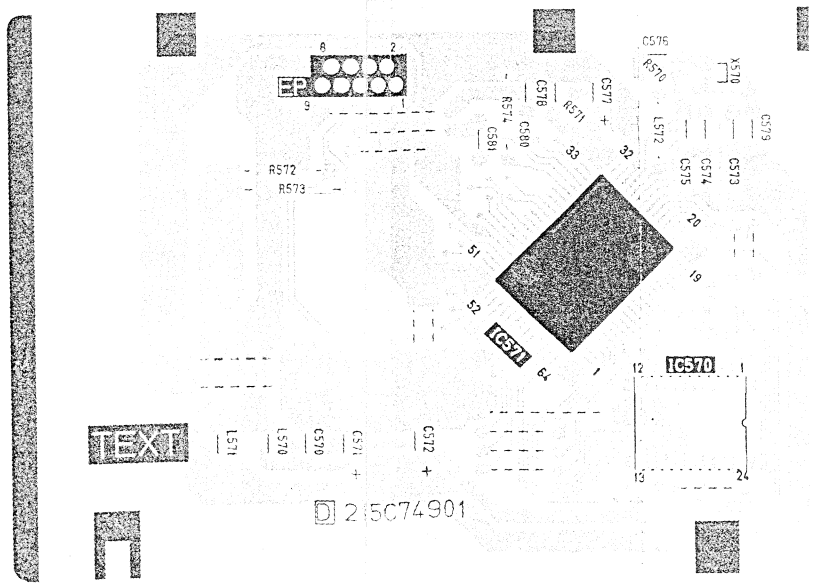
PCB-CONNECTOR

SYMBOL NO.	ADDRESS
D2301	A – 1
D2302	B – 3
D2303	B – 1
D2304	B – 1
D2305	A – 2
D2306	A – 3
D2307	A – 1
D2308	A – 3
D2309	B – 3
D2310	B – 3
D2311	B – 2
D2312	B – 2
D2313	A – 2
D2315	A – 2
IC2301	A – 1
IC2302	B – 3
IC2303	B – 2
J2301	B – 3
J2302	A – 3
L2301	B – 1
Q2301	B – 1
Q2304	A – 1

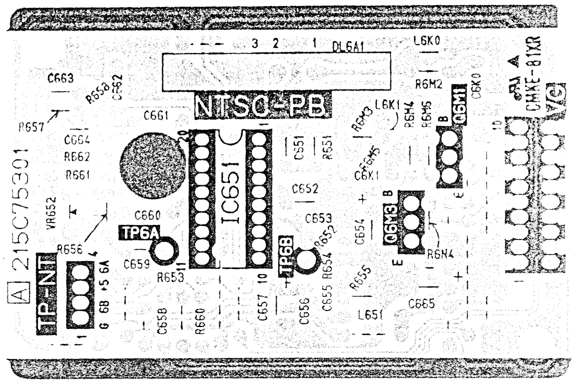
PCB-SIF ((EE) model only)


SIF
A 215C75801
IC51
TP51
TP52
Q51
Q52
Q53
Q55
CG

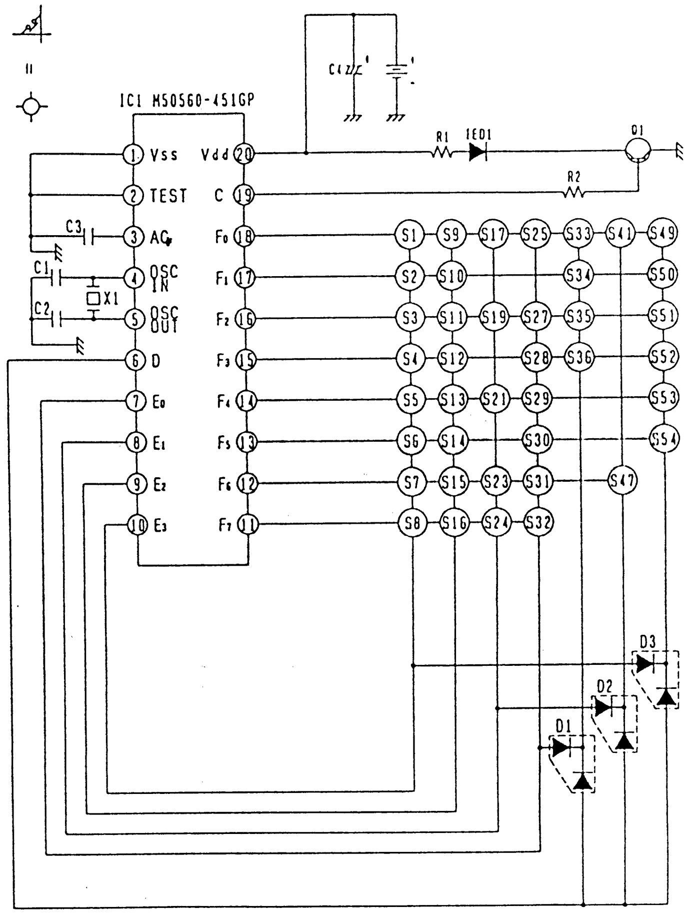
PCB-TEXT (V(B) model only)


TEXT
D 215C74901
IC571
IC570
EP

PCB-NTSC-PB (HS-M40V(Y),V(IR),V(E),V(G) only)

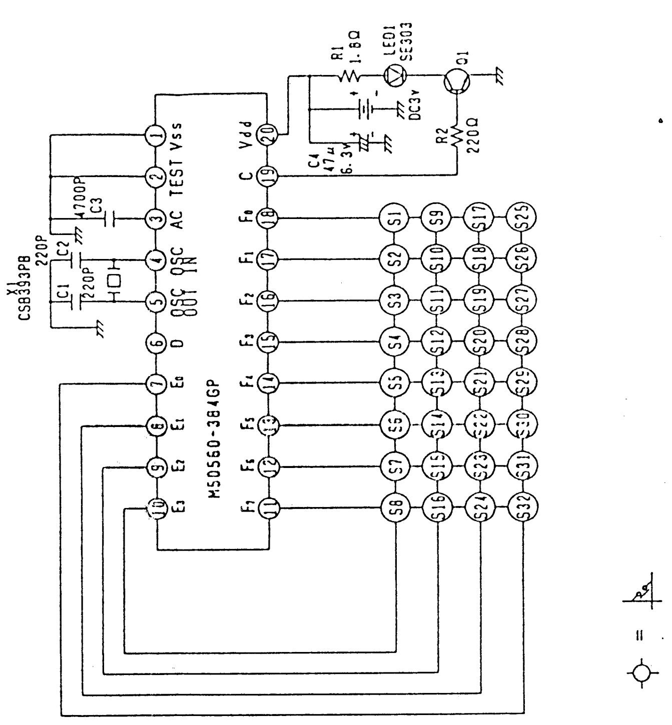

NTSC-PB
A 215C75301
IC651
TP-NT
TP6A
TP6B
CMKE-81XR
VG

TRANSMITTER REMOTE CONTROL


IC1 M50560-451GP
Vss
Vdd
TEST
C
AC
OSC IN
OSC OUT
D
E0
E1
E2
E3
F0
F1
F2
F3
F4
F5
F6
F7
C1
C2
C3
C4
X1
R1
R2
LED1
Q1
D1
D2
D3

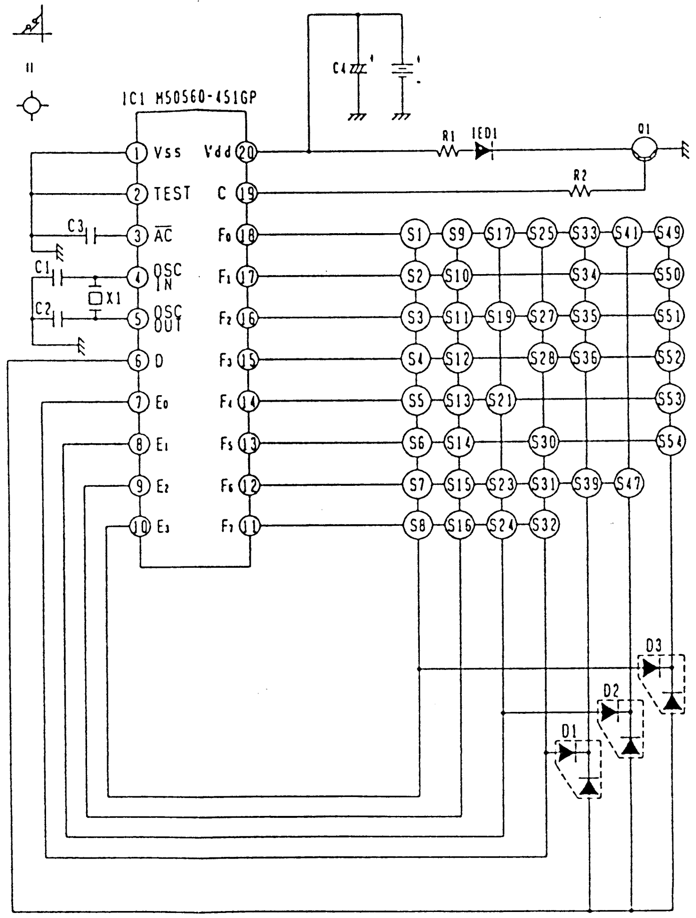
HS-M30V(E)
HS-M30V(G)
HS-M30V(Y)

TRANSMITTER REMOTE CONTROL


R1 1.8Ω
LED1 SE303
Q1
R2 220Ω
C4 47µ 6.3V
DC3V
X1 CSB393PB
220P
4700P
C1
C2
C3
M50560-384GP
Vss
TEST
AC
OSC IN
OSC OUT
D
Vdd
C

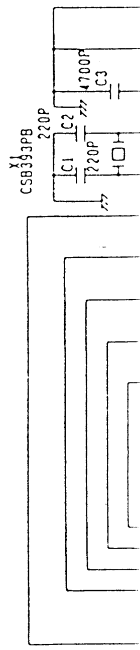
HS-M30(Y)
HS-M30(EE)

TRANSMITTER REMOTE CONTROL

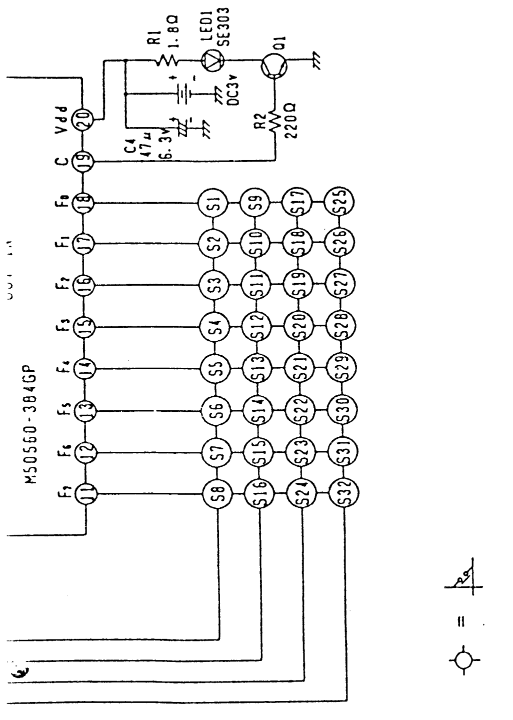

IC1 M50560-451GP
Vss
Vdd
TEST
C
AC
OSC IN
OSC OUT
D
E0
E1
E2
E3
C1
C2
C3
C4
X1
R1
R2
LED1
Q1
D1
D2
D3

HS-M40V(B)
HS-M40V(E)
HS-M40V(G)
HS-M40V(Y)
HS-M40V(IR)

TRAN

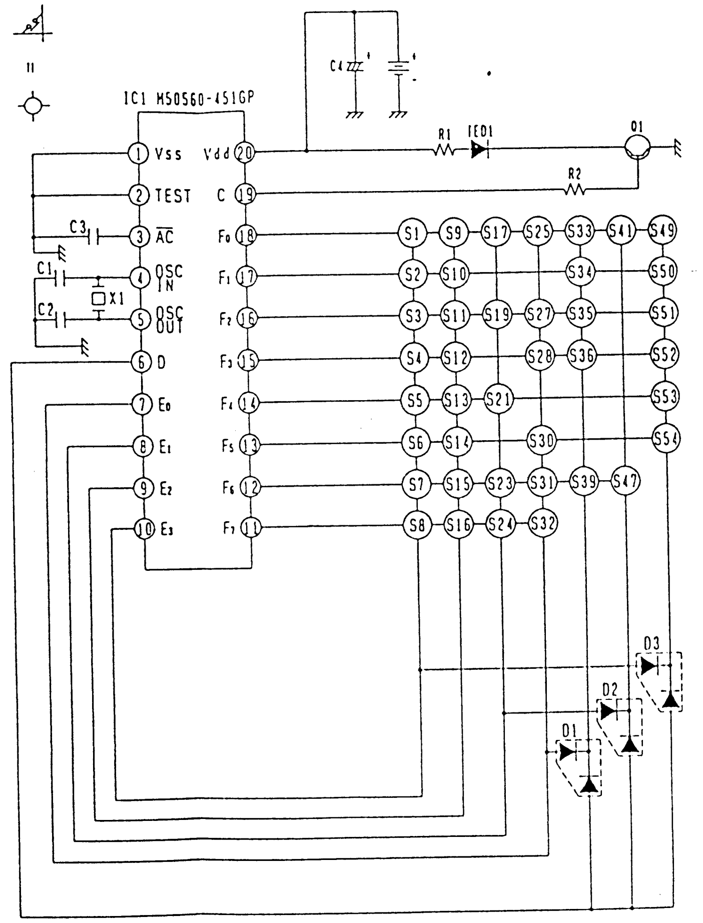

X1
CSB393PB
220P
4700P
C1
C2
C3

TER REMOTE CONTROL


R1 1.8Ω
LED1 SE303
Q1
C4 47µ 6.3V
DC3V
R2 220Ω
Vdd
C
F0
F1
F2
F3
F4
F5
F6
F7
M50560-384GP
S1
S9
S17
S25
S32

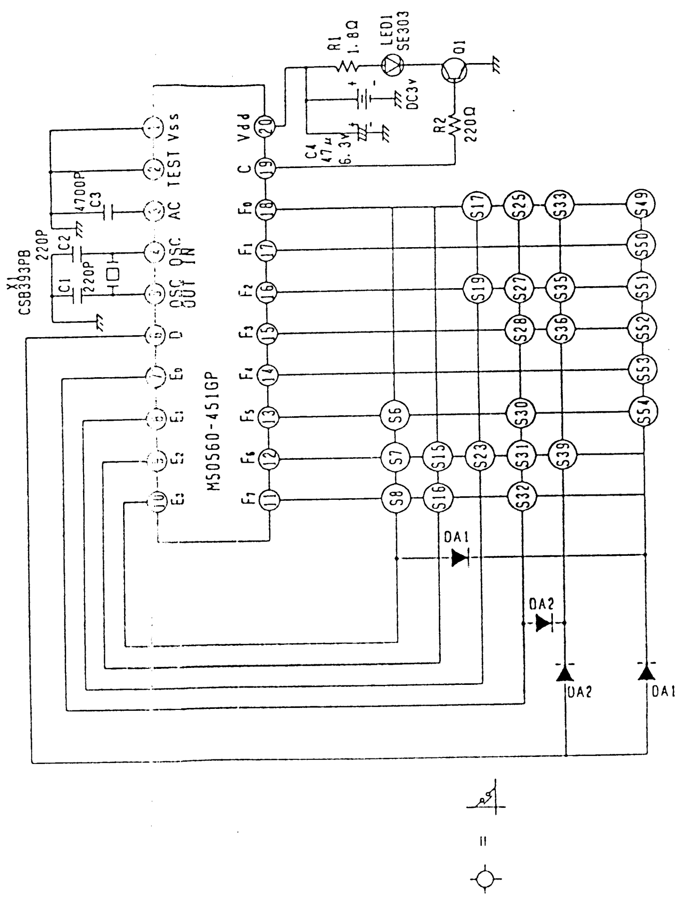
HS-M30(Y)
HS-M30(EE)

TRANSMITTER REMOTE CONTROL


IC1 M50560-451GP
Vss
TEST
AC
OSC IN
OSC OUT
D
E0
E1
E2
E3
Vdd
C
F0
F1
F2
F3
F4
F5
F6
F7
C1
C2
C3
C4
X1
R1
LED1
R2
Q1
D1
D2
D3
S1
S49
S54
S47

HS-M40V(B)
HS-M40V(E)
HS-M40V(G)
HS-M40V(Y)
HS-M40V(IR)

TRANSMITTER REMOTE CONTROL


R1 1.8Ω
LED1 SE303
Q1
C4 47µ 6.3V
DC3V
R2 220Ω
Vss
TEST
AC
OSC IN
OSC OUT
D
E0
E1
E2
E3
Vdd
C
F0
F1
F2
F3
F4
F5
F6
F7
M50560-451GP
X1 CSB393PB
C1 220P
C2 220P
C3 4700P
DA1
DA2
S6
S49
S54

HS-M40(EE)